

**PERMITTEE RESPONSIBLE  
MITIGATION PLAN**

**For**

**BIG RIVERS INDUSTRIES, INC**

**USACE PERMIT  
MVN-2010-1148-CY**

**POINT COUPEE PARISH  
LOUISIANA**

**OCTOBER 2011**

**PREPARED BY:**

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*better notice 2.5:1*

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**PERMITTEE RESPONSIBLE MITIGATION PLAN  
BIG RIVERS INDUSTRIES, INC  
MVN-2010-1148-CY MITIGATION AREA  
POINT COUPEE PARISH, LOUISIANA**

**I. Project Purpose**

A Permittee Responsible Mitigation (PRM) Plan is prepared in accordance with 33 CFR 332 published in the Federal Register (Volume 73 Number 70) on April 10, 2008 (effective date June 9, 2008). This PRM Plan will establish the Big River Industries, Inc. USACE Permit MVN-2010-1148-CY Mitigation Area (Mitigation Area) to provide compensation for losses of aquatic resources due to impacts associated with Department of the Army Permit MVN-2010-1148-CY. The permit applicant Big River Industries, Inc. (Permittee) has contracted with Delta Land Services LLC (DLS) for implementation, performance and long-term management of the Mitigation Area as per 33 CFR 332.3 (l).

The Mitigation Area will provide compensatory mitigation for unavoidable impacts to "Waters of the United States" authorized through the issuance of the Department of the Army Permit MVN-2010-1148-CY pursuant to Sections 9 and 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act of 1972. The goal of the Mitigation Area will be accomplished through the restoration of bottomland hardwood (BLH) forested wetlands within the historic, alluvial floodplain of the Mississippi River in Point Coupee Parish, Louisiana. Other non-mitigation credit acreages proposed on the Mitigation Area are wildlife openings for food plots and access trails to facilitate monitoring/maintenance activities associated with bank establishment and long-term management.

To reach the goal, the objectives are as follows:

- To restore historic and self-sustaining surface hydrology within the 248.5-acre Mitigation Area;
- To restore 233.6 acres of native bottomland hardwood through hydrology restoration and afforestation of native species;
- To maintain a 3.3-acre hydric inclusion through hydrology restoration;
- To improve water quality by reducing of non-point source runoff;
- To improve habitat for forested wetland inhabitants (i.e. flora and fauna) by establishing a bottomland hardwood wetland ecosystem;
- To ensure long-term viability and sustainability of the Mitigation Area through active and adaptive management including, but not limited to, invasive species control, appropriate monitoring, and long-term maintenance;
- To establish financial assurances needed to achieve long-term success criteria; and
- To place the 248.5-acre Mitigation Area under perpetual, conservation servitude.



## **II. Mitigation Site Information**

### **A. Mitigation Area Location**

The Mitigation Area is located at latitude 30.635819° N and longitude 91.402985° W (approximate center point) (World Geodetic System of 1983 [WGS83]) in Pointe Coupee Parish, Louisiana (Attachment A: Figures 1 and 2). This location includes a portion of Section 101 within Township 5 South, Range 10 East and Sections 97, 18 and 98 within Township 5 South, Range 11 East. The Mitigation Area is located approximately 4.5 miles south-southeast of New Roads, Louisiana.

From Lakeland, Louisiana turn left off Poydras Bayou Road onto Highway 416 and travel 0.2 miles. Then turn right on Highway 413 to Highway 414. At Highway 414, turn left on Highway 414. On Highway 414 travel approximately 1.6 miles to Oilfield Road and take a right onto Oil Field Road. Travel approximately 1.4 miles; take a right on the unimproved road for approximately 0.9 miles. The Mitigation Area is on the left (north side of the unimproved road).

### **B. Mitigation Area Ownership**

The Mitigation Area owner is owned in three quarters interest by the Succession of John E. Jumonville and one quarter undivided interest by Claude Coulon Jumonville (Owner) who resides at 7514 Ponderosa Lane, Ventress, Louisiana 70783.

### **C. Mitigation Area Legal Definition**

A certain parcel of land, together with all buildings and improvements thereon, and all of the right-of-ways (ROW), privileges, servitudes, prescriptions, advantages and appurtenances thereunto belonging, or in anywise appertaining, situated as stated above and more fully described as follows:

A tract or parcel of land located in section 97, Township 5 South, Range 11 East and Section 101 Township 5 South, Range 10 East in Pointe Coupee Parish, Louisiana. Begin at a cross-tie marking the apparent corner common to Section 55 Township 5 South, Range 10 East and Sections 18, 97, 98, Township 5 South, Range 11 East, the point of beginning (p.o.b.); thence along a fence line along the western boundary of Timber Hawk, LLC the following courses: north 13 degrees 52 minutes 16 seconds east a distance of 60.05 feet, north 17 degrees 05 minutes 23 seconds east a distance of 601.83 feet, north 16 degrees 50 minutes 20 seconds east a distance of 826.35 feet, north 17 degrees 01 minutes 07 seconds east a distance of 896.83 feet, north 19 degrees 24 minutes 24 seconds east a distance of 22.43 feet, north 17 degrees 01 minute 41 seconds east a distance of 1389.60 feet, north 15 degrees 50 minutes 25 seconds east a distance of 169.04 feet, north 16 degrees 54 minutes 36 seconds east a distance of 226.15 feet, and north 16 degrees 50



minutes 41 seconds east a distance of 888.70 feet to a calculated point being a fence intersection; thence along said fence line along the southwesterly boundary of the John E. Jumonville property the following courses: north 43 degrees 36 minutes 41 seconds west a distance of 1419.83 feet, north 43 degrees 38 minutes 50 seconds west a distance of 2148.36 feet, and north 46 degrees 22 minutes 00 seconds east a distance of 96.92 feet to a calculated point; thence north 43 degrees 38 minutes 00 seconds west a distance of 180.00 feet to a calculated point, thence along the western boundary of said John E. Jumonville property the following courses: north 58 degrees 36 minutes 00 seconds east a distance of 1001.18 feet to a calculated point and north 13 degrees 07 minutes 21 seconds east a distance of 1285.58 feet to a calculated point being the apparent southwest corner of Jumonville farms, said point being on the 40 arpent line running from false river; thence along said forty arpent line the following courses: north 71 degrees 16 minutes 57 seconds west a distance of 427.95 feet to a 2-inch iron pipe found, north 66 degrees 28 minutes 52 seconds west a distance of 219.59 feet to a 1-inch iron pipe found, north 66 degrees 57 minutes 25 seconds west a distance of 381.54 feet to a t-post found, north 67 degrees 12 minutes 07 seconds west a distance of 507.74 feet to a 1-inch iron rod found, north 66 degrees 58 minutes 40 seconds west a distance of 1200.83 feet to an axle found, north 66 degrees 49 minutes 00 seconds west a distance of 320.38 feet to a 2-inch iron pipe found, north 69 degrees 47 minutes 21 seconds west a distance of 518.08 feet to a 2-inch iron pipe found, north 59 degrees 06 minutes 10 seconds west a distance of 952.16 feet to a 3/4 -inch iron pipe found, south 83 degrees 52 minutes 04 seconds west a distance of 246.09 feet to a 3/4-inch iron pipe found, south 86 degrees 33 minutes 32 seconds west a distance of 3769.86 feet to a 2-inch iron pipe found north 80 degrees 54 minutes 22 seconds west a distance of 1154.75 feet to a 2-inch iron pipe found, south 89 degrees 08 minutes 19 seconds west a distance of 349.46 feet to a 3/4-inch iron pipe found and south 85 degrees 46 minutes 26 seconds west a distance of 862.04 feet to a calculated point along the eastern boundary fence line of Ernest Jewell, Jr.; thence along said fence line the following courses: south 02 degrees 38 minutes 33 seconds east a distance of 584.33 feet, south 14 degrees 24 minutes 18 seconds west a distance of 505.56 feet, south 17 degrees 54 minutes 55 seconds west a distance of 105.69 feet, south 24 degrees 50 minutes 46 seconds west a distance of 118.49 feet, south 5 degrees 32 minutes 26 seconds west a distance of 456.28 feet, south 05 degrees 32 minutes 25 seconds west a distance of 773.03 feet, south 79 degrees 13 minutes 08 seconds west a distance of 302.39 feet, south 78 degrees 45 minutes 50 seconds west a distance of 227.60 feet and south 73 degrees 45 minutes 03 seconds west a distance of 266.53 feet to the intersection with the property of Craig Major; thence along said Craig Major easterly fence line the following courses: south 23 degrees 52 minutes 22 seconds east a distance of 447.70 feet, south 31 degrees 33 minutes 10 seconds east a distance of 492.79 feet to a 1 1/4-inch iron pipe found, south 31 degrees 36 minutes 32 seconds east a distance of 168.25 feet, south 30 degrees 06 minutes 34 seconds east a distance of 470.66 feet, south 30 degrees



42 minutes 44 seconds east a distance of 286.66 feet, south 37 degrees 56 minutes 30 seconds east a distance of 152.10 feet, south 40 degrees 44 minutes 42 seconds east a distance of 369.97 feet, south 41 degrees 02 minutes 50 seconds east a distance of 147.26 feet, south 37 degrees 59 minutes 37 seconds east a distance of 70.85 feet to a 1 ½-inch iron pipe found, south 41 degrees 51 minutes 26 seconds east a distance of 702.88 feet, south 49 degrees 55 minutes 23 seconds east a distance of 221.89 feet to a ¾-inch iron pipe found, south 43 degrees 30 minutes 43 seconds east a distance of 41.45 feet, south 40 degrees 11 minutes 53 seconds east a distance of 404.04 feet, south 45 degrees 45 minutes 25 seconds east a distance of 900.33 feet, south 37 degrees 53 minutes 15 seconds east a distance of 136.79 feet to a ¾-inch iron pipe found, south 36 degrees 22 minutes 07 seconds east a distance of 437.92 feet, south 35 degrees 23 minutes 48 seconds east a distance of 63.43 feet to a ¾-inch iron pipe found, south 36 degrees 31 minutes 38 seconds east a distance of 193.00 feet, south 36 degrees 44 minutes 34 seconds east a distance of 308.08 feet to a 1-inch iron pipe found, south 33 degrees 55 minutes 52 seconds west a distance of 231.14 feet, south 32 degrees 31 minutes 24 seconds west a distance of 430.14 feet, south 33 degrees 38 minutes 22 seconds west a distance of 340.50 feet, south 34 degrees 37 minutes 22 seconds west a distance of 301.74 feet to a ¾-inch iron pipe found; thence along the northerly (forty arpent fence line) of various owners the following courses: south 75 degrees 00 minute 01 second east a distance of 527.37 feet, south 74 degrees 18 minutes 54 seconds east a distance of 484.84 feet to a 2 ½-inch iron pipe found, south 73 degrees 35 minutes 46 seconds east a distance of 253.94 feet to a 3-inch iron pipe found, south 74 degrees 03 minutes 24 seconds east a distance of 388.12 feet, south 74 degrees 14 minutes 20 seconds east a distance of 473.94 feet to a ½-inch iron pipe found, south 74 degrees 25 minutes 07 seconds east a distance of 620.33 feet, south 73 degrees 57 minutes 25 seconds east a distance of 846.51 feet to an axle found, south 71 degrees 20 minutes 28 seconds east a distance of 1150.53 feet, south 71 degrees 21 minutes 44 seconds east a distance of 1269.58 feet, south 69 degrees 19 minutes 53 seconds east a distance of 1227.83 feet to a railroad iron found, south 73 degrees 40 minutes 28 seconds east a distance of 1447.14 feet and south 82 degrees 24 minutes 35 seconds east a distance of 42.27 feet to the p.o.b. consisting of approximately 2131 acres as shown on a plat of survey by Charles R. St. Romain, registered land surveyor, dated June 28, 2011.

The perimeter of the Mitigation Area is defined by the following coordinates in decimal degrees (World Geodetic System of 1983 [WGS83]):

Latitude	30.6304420734° N	Longitude	91.3987118615° W
Latitude	30.6314562101° N	Longitude	91.4027742583° W
Latitude	30.6327147606° N	Longitude	91.4066423770° W
Latitude	30.6337985730° N	Longitude	91.4102687034° W
Latitude	30.6407497324° N	Longitude	91.4068355145° W



Latitude 30.6415588127° N Longitude 91.4058931225° W  
Latitude 30.6393642738° N Longitude 91.4015743814° W  
Latitude 30.6383592236° N Longitude 91.3959520583° W

#### **D. Recorded Liens, Encumbrances, Easements, Servitudes or Restrictions**

A title opinion was rendered by Mr. Stephen P. Jewell of Jewell & Jewell (Attachment B). The mitigation area is free of from mortgages, liens and encumbrances except for three mortgages held in favor of Peoples Bank and Trust Company of Pointe Coupee. However, Peoples Bank and Trust Company will subordinate the mortgage in favor of the conservation servitude described in Section VIII.

### **III. RESPONSIBILITIES OF PARTIES**

#### **A. The Owner**

1. The Owner of the Mitigation Area, through the permittee, will furnish satisfactory evidence of clear title prior to the execution of this Permittee Responsible Mitigation Plan Agreement (PRMPA).
2. The Owner will grant a perpetual conservation servitude over the Mitigation Area in accordance with Louisiana law and La. R. S. 9:1272. Upon execution of the conservation servitude, the Owner will record it with an attached copy of this PRMPA and the corps issued permit in the conveyance records of Point Coupee Parish where the Mitigation Area is located, unless such conservation servitude was previously executed and properly recorded by a former owner pursuant to this PRMPA. Proof of such recordation will be provided to CEMVN, Regulatory Branch, within 15 days of filing.
3. The Owner will not allow any prohibited uses of the Mitigation Area as set forth in the PRMPA and the conservation servitude.
4. To avoid the risk of possession by a financial institution, the Owner will not identify the Mitigation Area as collateral for any business transaction.
5. The Owner will allow the permittee or responsible party/contractor access to the Mitigation Area. Any limitations on such access are to be a matter of contract between the Owner and the permittee. The Owner will also allow access to the Mitigation Area to CEMVN and the Holder of the Conservation Servitude in accordance with this PRMPA.
6. The Owner will make periodic inspections of the Mitigation Area of not less than once per year to verify that use of the Mitigation Area is consistent with this PRMPA and the conservation servitude.



7. In the event the Owner discovers a prohibited use or any damage to the Mitigation Area, the CEMVN shall be notified in accordance with the provisions of this PRM Plan Agreement.

#### **B. The Permittee**

1. The Permittee will assume the legal responsibility for the compensatory mitigation requirement of the DA permit associated with this PRMPA.

2. The Permittee will perform all necessary work to establish, monitor and maintain aquatic habitats and buffers as described in the PRMPA.

3. The Permittee will be responsible for maintaining all records, monitoring the mitigation site for success, conducting remedial action as necessary to ensure success, and providing this information to CEMVN in reports documenting mitigation site usage and the results of monitoring in accordance with provisions in the PRMPA.

4. The Permittee will be responsible for advising CEMVN of any pending sale of the Mitigation Area or any other change in ownership at least 60 days prior to the effective date.

5. The Permittee will obtain all appropriate environmental documentation, permits and other authorizations needed to establish and maintain the mitigation site. Compliance with the PRMPA does not fulfill the requirement, or substitute, for such authorization.

6. Unless the permit is transferred with prior CEMVN approval, the Permittee remains responsible for the 1) compensatory mitigation project on the Mitigation Area, and 2) the long-term management, maintenance, monitoring, and protection of the Mitigation Area.

7. Upon transfer of the permit the new permittee will then assume the responsibility of the present permittee.

8. The permittee or Long-term Steward/Owner, or its heirs, assigns or purchasers shall be responsible for protecting lands contained within the mitigation area in perpetuity, unless the lands are transferred or sold to a state or federal resource agency or non-profit conservation organization. The conservation servitude shall incorporate the PRMPA by reference and bind the permittee or Long-term Steward/owner, its heirs, assigns, and future owners to complying with the terms of this copy of the PRMPA.

### **C. Holder of the Conservation Servitude (Holder)**

1. The Holder shall hold and enforce the Conservation Servitude placed on those lands within the Bank subject to a recorded perpetual conservation servitude so that the mitigation site is protected in perpetuity.
2. The Holder will notify CEMVN within 24 hours of the discovery of any action taken to void or modify the conservation servitude.
3. The Holder shall perform yearly inspections and provide annual reports as to compliance with restricted and approved uses of the mitigation site identified in the conservation servitude.
4. The Holder may be the recipient of the financial assurance should the owner be in default of this PRMPA and shall utilize the funds as directed by CEMVN.
5. The Holder may serve as the Long-term Steward should the Owner make arrangements for the holder to act in this capacity.

### **D. Long-term Steward (Steward)**

Should the permittee choose to designate a Long-term Steward, the Permittee will provide CEMVN with written notice of his intent to designate one at least 60 days prior to the effective date of the Steward's assumption of the responsibilities. This notice must include the proposed Steward's name and the name of its authorized representative, if different, its address and phone number, the anticipated date of the transfer, and a statement signed by the proposed Steward that the Permittee has:

1. Provided copies of this PRMPA and the Conservation Servitude;
2. Explained the allowed/prohibited uses of the Mitigation Area;
3. Transferred any remaining C&E financial assurance and Long-term Maintenance and Protection endowment funds to accounts established by the Long-term Steward and approved by CEMVN; and
4. All funds in the Long-term Management and Protection Fund will be transferred to the designated Long-term Steward.

## **IV. Goals and Objectives**

### **A. Aquatic Resource Type and Functions Impacted and Restored**

The goal of successfully establishing the Mitigation Area is to mitigate for 91.9 acres of impacts within the Lower Grand watershed (USGS 08070300) associated with DA Permit MVN-2010-1148-CY. The habitat type for the impact area and proposed



Mitigation Area is bottomland hardwoods as defined by Louisiana Department of Wildlife and Fisheries Natural Heritage Program (LDWF NHP 2004). Bottomland hardwoods habitat consists of forests that typically occupy broad floodplain areas flanking large river systems. Typical bottomland hardwood systems exhibit an alternating hydrologic regime of wet and dry periods that follow seasonal flooding events. Bottomland hardwoods provide important ecosystem functions including maintenance of water quality, productive habitat for a variety of aquatic and wildlife species, regulation of flooding, and stream recharge.

The 248.5-acre Mitigation Area will restore and protect a forested wetland ecosystem through re-establishment and rehabilitation of 233.6 acres of bottomland hardwood, wetland forest. The wetland forest restoration will provide additional wetland functions and values that are currently not utilized. Local and downstream water quality will increase by removing hay/livestock production, afforestation with native wetland tree species, and increasing surface-water retention time for vegetative nutrient uptake and sedimentation. The increase in water quality will result primarily from removing the cattle operation and eliminating certain practices used to produce desirable vegetative species conducive for grazing and hay production.

The mitigation habitat is depicted in Attachment A: Figure 3 and Table 1 below.

**Table 1. Mitigation types, features, and acreages.**

Mitigation Type	Feature	Acreage
Type 1 re-establishment	Bottomland Hardwoods (Overcup Oak-Water Hickory)	42.0
Type 2 re-establishment	Bottomland Hardwoods (Sugarberry-American Elm-Green Ash)	66.8
Type 3 re-establishment	Bottomland Hardwoods (Sweetgum-Water Oak)	114.1
Type 1 rehabilitation	Bottomland Hardwoods (Overcup Oak-Water Hickory)	8.7
Type 3 rehabilitation	Bottomland Hardwoods (Sweetgum-Water Oak)	2.0
Hydric Inclusion <sup>1</sup>	Existing Bottomland Hardwoods	(3.3)
<b>Total Mitigation Acres</b>		<b>233.6</b>
Non-mitigation	Food Plots/Wildlife Openings	7.8
Non-mitigation	Access Trails	3.8
<b>Total Non-mitigation Acres</b>		<b>11.6</b>
<b>Total Project Acres</b>		<b>248.5</b>

1. The value of hydric inclusion acreage is distributed throughout the re-establishment and rehabilitation acreages and not included as a separate mitigation type.



Utilizing the Modified Charleston Method (MCM), the USACE determined that the 91.9-acre impact would require a minimum of 1,135.8 MCM credits to satisfy the mitigation requirement. The Mitigation Area will generate 1,135.9 MCM credits (Attachment C).

## **B. Watershed Contributions**

The proposed impact site and Mitigation Area are located in the Lower Grand Watershed (US Geological Survey [USGS] eight-digit Hydrologic Unit Code [HUC] 08070300), and the Mitigation Area will provide in-kind mitigation within the same HUC. The Lower Grand watershed is the focus of the Upper Terrebonne Basin (UTB) Water Quality Improvement Project, whose goals are to protect water resources and improve quality of impaired waters within the watershed for fish and wildlife, drinking water, and aesthetics. One of the goals of this initiative is to complete the False River Ecosystem Restoration Study and Project authorized by Section 206 of the 1996 Water Resources Development Act (WRDA). According to the premise for this study, False River has undergone a decline in water quality as a result of siltation, nutrient loading, and pollutants entering the "River" through over 50 miles of drainage ditches from adjacent pastureland (Earth Consulting Group 2007 and Earth Consulting Group et al. 2009). The Permittee believes that restoration of this site will play an integral role in ecosystem restoration and achieving the goals of the UTB Water Quality Improvement Project.

## **VII. Site Selection**

The primary factors considered during site selection were 1) location within the same HUC, 2) in-kind mitigation, and 3) the ecological likelihood of successful restoration. The re-established wetland forest should resemble the existing forests inhabiting ridge and swale topography (Attachment A: Figure 4). The restoration of bottomland hardwood forest on the 248.5-acre Mitigation Area will provide additional wetland functions and values, which are not realized in the site's current condition. These include, but are not limited to, expanding the acreage of existing bottomland hardwood wetlands; increasing the quality of wildlife habitat; and increasing watershed water quality by retiring existing agricultural land from livestock production.

The construction work required to develop the mitigation area is routine in nature and feasible, consisting primarily of afforestation with facultative or wetter bottomland hardwood species, the elimination of artificial drains, and the restoration of natural drainage flow. The presence of hydric soils indicates that minimal soil work will be required for restoration and provides a high likelihood of successful re-establishment of forested wetlands.

## **VIII. Site Protection Instrument**

The Owner shall burden the Mitigation Area with a perpetual Conservation Servitude in accordance with Louisiana law, LA R.S. (9:1271). Prior to execution of the Conservation



Servitude, the Owner shall provide evidence through the permittee that the entity proposed to hold the Conservation Servitude is a CEMVN approved Holder by virtue of being either a governmental body empowered to hold an interest in immovable property under the laws of the State of Louisiana or the United States of America; or is a non-profit corporation organized pursuant to Louisiana's Non-Profit Corporation Law, Title 12, Sections 201-269 of the Louisiana Revised Statutes, the purposes or powers of which include retaining or protecting the natural, scenic, or open-space values of immovable property; assuring the availability of immovable property for agricultural, forest, recreational or open-space use; protecting natural resources; maintaining or enhancing air or water quality; or preserving the historical, archaeological or cultural aspects of unimproved immovable property. Upon execution of the Conservation Servitude previously described, the Holder shall hold and enforce the Conservation Servitude placed on the mitigation site and the mitigation site shall be protected in perpetuity.

The Conservation Servitude shall be signed and filed in the Pointe Coupee Parish office with this PRMPA and DE permits attached. The Conservation Servitude shall be filed prior to performing any work authorized by DA permit number MVN-2010-1148-CY. After filing, a copy of the recorded Conservation Servitude, clearly showing the book, page and date of filing, will be provided to CEMVN. Upon receipt of a copy of the recorded Conservation Servitude, CEMVN will advise the permittee in writing that work may proceed.

Modification of the Conservation Servitude is not permissible without approval from CEMVN. Any proposed modification to the Conservation Servitude, or to the rights and obligations created under this agreement, requires Grantor to provide a 60-day notice to CEMVN. The Grantor must provide this notice as a written request describing existing language and the requested modification to CEMVN. Upon review of this request, CEMVN will make the decision as whether or not to approve any modification to the conservation servitude.

The Owner and the Permittee understand that the Conservation Servitude applies to the entire Mitigation Area. No other human activities that result in the material degradation of habitat within the Mitigation Area shall occur without written authorization from CEMVN.

#### **A. Uses Prohibited by the Conservation Servitude**

No activities that result in the material degradation of habitat within the Mitigation Area shall occur unless written authorization is obtained. Prohibited activities include but are not limited to:

1. Constructing any structure or structures on said Mitigation Site;
2. Cutting, burning, removing or destroying vegetation (including trees) on said Mitigation Site except in accordance with a CEMVN approved plan for controlling invasive species;



3. Building or allowing to be built or developed roads, trails or paths on said Mitigation Site except as authorized by CEMVN;
4. Partitioning the Mitigation Site with fencing without written authorization from CEMVN;
5. Constructing perimeter or boundary fencing designed to impede the movement of terrestrial wildlife to and from the Mitigation Area from adjacent forested or other undeveloped land or designed to contain terrestrial wildlife within the Mitigation Area without authorization by the CEMVN;
6. Changing the elevation or contours (excavate or deposit dredged material) of said Mitigation Area except in accordance with the MWP or under an approved adaptive management plan;
7. Allowing pumping or draining or causing said Mitigation Area to be drained in any way;
8. Placing, filling, storing, or dumping refuse, trash, vehicle bodies or parts, rubbish, debris, junk, waste, or other such items on the Mitigation Site;
9. Allowing land clearing or deposition of soil, shell, rock or other fill on the Mitigation Site without written authorization from CEMVN;
10. Allowing the grazing of cattle or other domestic livestock on the Mitigation Site.
11. Allowing other commercial, industrial, agricultural or residential uses of the Mitigation Site without written authorization from CEMVN; or
12. Allowing any other activities, which are inconsistent with the establishment, maintenance and protection of the Mitigation Area as legally described in Section II. C.

#### **B. Allowed Uses**

The Owner/Permittee shall not use or authorize the use of areas within the Mitigation Site for any purpose that interferes with its conservation purposes other than those specified below:

1. Monitoring of vegetation, soils and water;
2. Maintenance of wetlands, pre-existing trails, bridges, berms, dams, outlet and spillway structures, and other appurtenant facilities as identified in Section X;



3. Hunting, fishing, trapping and non-consumptive recreational uses (i.e., hiking, bird watching, etc.);
4. Ecological education that does not require destruction or injury to any trees, ground areas, etc.;
5. Compliance with federal regulations or appropriate court orders;
6. Activities identified in Sections VII and VIII necessary to implement and maintain the development of the Mitigation Site in accordance with this PRMPA; and
7. Any activity that has received authorization from CEMVN through a DA permit or other written authorization. The owner, permittee, or project proponent understand that the construction, operation and abandonment of any authorized activity must be done in such a manner that minimizes direct, secondary and cumulative adverse impacts to the Mitigation Site. Upon abandonment, the site will be restored to pre-project elevations and planted with a mixture of appropriate wetland species.

## **IX. Baseline Information**

### **A. Land Use**

#### **1. Historical Land Use**

The Mitigation Area was historically a bottomland hardwood forest underlain by hydric soils typical of those associated with the lower natural levee to backswamp areas of the Mississippi River floodplain (Attachment A: Figures 5 and 6). Between 1952 and 1972, the Mitigation Area was gradually cleared for agricultural purposes (e.g., cattle grazing and hay production) (Attachment A: Figures 7 and 8). From 1972 to the present, the Mitigation Area has remained cleared and utilized for cattle and hay production (Attachment A: Figures 9-12).

#### **2. Current Land Use**

The Mitigation Area is used for livestock and hay production. There are over 2,000 acres of existing forested wetlands adjacent to the project area's west and south boundary. These existing forests are classified as Palustrine Forested Wetlands (PFO) on the National Wetland Inventory Maps (USFWS 2011) and as Woody Wetlands on the USGS Land Use and Land Cover dataset (Attachment A, Figure 13).

## **B. Soils**

The soils within the Mitigation Area are mapped by the NRCS (2011<sup>2</sup>) as Dundee-Alligator complex, undulating (De) (Attachment A, Figure 14). The Alligator soils are mapped as hydric by the NRCS (2011<sup>3</sup>) while Dundee soils are not. However, all soil samples taken within the Mitigation Area during the wetland field investigation contained indicators of hydric soils to sufficient extent to classify them as hydric in accordance with USACE (2010).

## **C. Hydrology**

### **1. Historical Drainage Patterns**

The surface of the Mitigation Area is relict ridge and swale topography created by the meandering and overbank flooding of the Mississippi River. In 1772, the Mississippi River changed its course and created the False River oxbow lake. Meander scars, ridges, and swales are visible on aerial photography. Beginning in the 19<sup>th</sup> century and further after the 1927 Mississippi River Flood, the area was isolated from the river by levees.

### **2. Existing Drainage Patterns**

With the existing levee system the site is not prone to direct flooding from the Mississippi River so the primary source of surface water on the site is precipitation and high water tables. The water tables are influenced by high water in the Mississippi River. The existing hydrology is influenced by a network of agricultural drainage ditches flowing into the Discharge Canal which is an artificial drainage feature which drains the Mitigation Area and surrounding area into False River (Attachment A: Figure 15).

## **D. Vegetation**

### **1. Historical Plant Community**

Open areas (pasture) were forested and potentially dominated by species inhabiting adjacent, forested areas, which are dominated by FAC to FACW species on the ridges and OBL species in the swales and transitional areas. Observation of adjacent, existing forested areas indicates that the ridges consist of species such as Drummond red maple (*Acer rubrum* var. *drummondii*), sweetgum (*Liquidambar styraciflua*), American elm, sweet pecan, and boxelder (*Acer negundo*). The swales are dominated by baldcypress (*Taxodium distichum*) and the transitional areas are dominated by Nuttall oak (*Quercus texana*). The aforementioned and all scientific plant names are from the Natural Resource Conservation Service (NRCS 2011<sup>1</sup>). The National Wetland Inventory (NWI) map designates these adjacent forested areas as Palustrine Forested Wetlands (USFWS 2010).



## **2. Existing Vegetative Community**

The pasture area consisted of herbaceous species such as spinyfruit buttercup (*Ranunculus muricatus*), bermudagrass (*Cynodon dactylon*), southern dewberry (*Rubus trivialis*), Carolina geranium (*Geranium carolinianum*), and curly dock (*Rumex crispus*). Vegetation in wetland areas, whether forested or emergent, was comprised of species typical to that of highly disturbed areas. Most of the drainage ditches were inhabited by giant cutgrass (*Zizaniopsis miliacea*), common rush (*Juncus effuses*), black willow (*Salix nigra*) and Chinese tallow tree.

### **E. Jurisdictional Determination**

On July 26, 2011, the USACE issued a Jurisdictional Determination on the Mitigation Area indicating the locations of wetlands, non-wetlands, and "Other waters of the U.S." (Attachment D). The sites being utilized as Re-establishment are nonwetland areas and the sites being utilized for Rehabilitation and Hydric Inclusions were determined to be wetlands.

## **X. Mitigation Work Plan**

DLS, as the contractor for the permittee, will restore wetland functions and values by removing livestock operations, restoring natural surface hydrology and surface elevations, and planting appropriate bottomland hardwood tree species.

### **A. Hydrology Restoration**

Hydrology restoration will be accomplished by backfilling the agricultural drainages with *in situ* soil material and re-establishing the natural slopes of these drainages to the extent practical (Figures 15 through 18). Approximately, 45,859 linear feet of drainage ditch/laterals will be degraded to natural grade to facilitate water retention and saturation. Approximately 7,016 cubic yards of earthen fill from *in situ* sources (i.e. adjacent ditch spoil) will be utilized for such purposes. The re-establishment of natural drainage patterns and landscape will restore sheet flow and increase water retention time.

The continued presence of an adjacent drainage system associated with pasture land was thoroughly considered when developing the hydrologic restoration plan. The permittee does not foresee any adverse impacts to the mitigation site resulting from the continued existence and operation of the neighboring land uses.

The result of the proposed hydrology restoration will restore sheet flow and increase retention time of surface/rain water within the Mitigation Area. There are no known outside hydrological disturbances on or adjacent to the site, which would adversely affect hydrologic restoration. The proposed hydrology work, including site preparation, will be completed in its entirety before the initiation of the proposed



vegetative plantings. The anticipated schedule for commencement of these activities is the fall of 2011.

## B. Plant Community Restoration

DLS, as the contractor for the permittee, will restore the original wetland vegetation by preparing the Mitigation Area for planting within the restoration areas. Plantings will be conducted during the first planting season, which spans from December 15, 2012 through March 15, 2013. The Mitigation Area will be prepared by mowing, grading, applying herbicide, and ripping the soil at 9-foot intervals to a depth of approximately 18 inches (Allen et al 2001). Appropriate seedling mixtures of bottomland hardwood species will be planted at approximately 9-foot x 9-foot centers, which is 538 stems per acre. Hard mast species shall not account for less than 50% or more than 70% of the planted seedlings throughout the Mitigation Area. These plantings accompanied with the hydrology improvements outlined in Section X.A will restore wetland functions and values to pre-conversion ecological conditions. Table 1 lists the species to be planted by bottomland hardwood type.

### Type 1 Bottomland Hardwood/Swamp Species

Common Name	Scientific Name	Mast Type
overcup oak	<i>Quercus lyrata</i>	hard
water hickory	<i>Carya aquatica</i>	hard
baldecypress	<i>Taxodium distichum</i>	soft
green ash	<i>Fraxinus pennsylvanica</i>	soft
Drummond red maple	<i>Acer rubrum var. drummondii</i>	soft

### Type 2 Bottomland Hardwood Species

Common Name	Scientific Name	Mast Type
Nuttall oak	<i>Quercus nuttalli</i>	hard
willow oak	<i>Quercus phellos</i>	hard
cow oak	<i>Quercus michauxii</i>	hard
sweet pecan	<i>Carya illinoensis</i>	hard
American elm	<i>Ulmus americana</i>	soft
green ash	<i>Fraxinus pennsylvanica</i>	soft

### Type 3 Bottomland Hardwood Species

Common Name	Scientific Name	Mast Type
Nuttall oak	<i>Quercus nuttalli</i>	hard
cherrybark oak	<i>Quercus pagoda</i>	hard
water oak	<i>Quercus nigra</i>	hard
sweet pecan	<i>Carya illinoensis</i>	hard



sweetgum	<i>Liquidambar styraciflua</i>	soft
American elm	<i>Ulmus americana</i>	soft
mayhaw	<i>Crataegus opaca</i>	soft
red mulberry	<i>Morus rubra</i>	soft
common persimmon	<i>Diospyros virginiana</i>	soft

The permittee realizes that control/elimination of Chinese tallow tree is crucial to the successful re-establishment of bottomland hardwoods on the Mitigation Area; however, the permittee does not foresee any complications associated with non-indigenous species that would hinder restoration. DLS, as the contractor for the permittee, will implement/complete site preparation, seedling planting, and invasive species control. The anticipated schedule for commencement of planting activities is January 2012.

## **XI. Maintenance Plan**

### **A. General**

The site will be monitored and maintained by DLS through contractual agreement with the Permittee. The Long-term Steward (DSL) protects wetland functions and values and maintains wetland habitats in accordance with the provisions of this plan. The CEMVN will provide appropriate oversight in carrying out provisions of this plan and review and provide comments on all project plans, annual monitoring reports, contingency plans, and necessary permits for the mitigation area. The CEMVN will also review and confirm reports on evaluation of success criteria. If remedial action is required, the permittee will provide an adaptive management plan for review and approval by CEMVN. CEMVN will then verify that remedial actions are performed.

### **B. Forest Management**

If thinning to maintain or enhance the ecological value of the site is determined necessary by the CEMVN at the time, the Permittee will develop a thinning plan in coordination with the CEMVN and interested resource agencies. Thinning operations will be performed by the permittee.

### **C. Long-term Funding**

The Permittee anticipates that the annual cost of long-term management following achievement of the long-term success criteria is \$7,788.31 (Attachment D). To ensure that sufficient funds are available for the perpetual maintenance of the project, the Permittee shall provide additional funds to the Construction and Establishment Assurance Fund described in Section XIV. These funds shall comprise the "Long-term Maintenance and Protection" portion of the account. The account will be fully funded at permit issuance for the impact site to equal \$256,463.12. At this time, accrued interest shall be used in long-term maintenance of the Mitigation Area. Only



the interest accumulated may be withdrawn for this purpose. The principal shall not be used and shall remain as part of the Mitigation Site's assets to ensure sufficient funds are available should perpetual maintenance responsibilities be assumed by a third party. The Permittee or a Long-term Steward may withdraw the accumulated interest only with written approval from the CEMVN. The Permittee shall provide copies of account statements to the CEMVN upon request. The permittee will provide documentation that the "Long-term Maintenance and Protection" escrow account is fully-funded.

## **XII. Performance Standards**

### **A. Initial Success Criteria**

#### **1. Hydrology**

Ground surface elevations must be conducive to the establishment and support of hydrophytic vegetation, and re-establishment and maintenance of hydric soil characteristics. To that end, all alterations of the natural topography (ditching) that have affected the duration and extent of surface water have been removed or otherwise rendered ineffective in accordance with this Permittee Responsible Mitigation Plan Agreement.

#### **2. Vegetation**

A minimum of 250 planted seedlings per acre must survive through the end of the second spring following the planting (i.e., Year 1). Those surviving seedlings must be representative both in species composition and percentage identified in Permittee Responsible Mitigation Plan Agreement. This criterion will apply to initial plantings, as well as, any subsequent replanting that may be needed to meet this requirement.

### **B. Interim Success Criteria**

#### **1. Hydrology**

By Year 3, two years following attainment of the one-year survivorship criteria, site hydrology will be restored such that the Mitigation Area meets the wetland criterion as described in the 1987 Manual. Data demonstrating that wetland hydrology has been re-established is to be collected by the Permittee and submitted to CEMVN in the monitoring report.

#### **2. Vegetation and Vegetative Plantings**

- a.** For a given planting, a minimum of 250 seedlings/saplings per acre must be present at the end of the fourth year (i.e., Year 5) following successful attainment of the one-year survivorship criteria. Trees established through



natural recruitment may be included in this tally; however, no less than 125 hard mast-producing seedlings per acre must be present. Surviving hard mast seedlings must be representative of the species composition and percentage identified in this PRMPA. Exotic and/or invasive species may not be included in this tally.

b. By Year 5, four years following successful attainment of the one-year survivorship criteria, the Mitigation Area and the perimeter will be virtually free (approximately 5% or less on an acre-by-acre basis) of exotic/invasive vegetation.

c. Developing plant community must exhibit characteristics and diversity indicative of a viable native forested wetland community commensurate with stand age and site conditions by Year 5. Achievement of wetland vegetation dominance is defined as a vegetation community where more than 50% of all dominant species are facultative ("FAC") or wetter, excluding FAC- plants, using "routine delineation methods" as described in the 1987 Manual.

### **C. Long-term Success Criteria**

1. Forest canopy coverage exceeds eighty percent of forested land mass as measured by an approved method. Forest canopy species abundance and composition is consistent with the restoration goals identified in the restoration plan and credit assessment methodologies.

2. When forest canopy coverage exceeds eighty percent, the mitigation area will be essentially void of exotic/invasive vegetation (all seed-producing trees removed from the site and site perimeter and less than 1% of the understory on an acre per acre basis). An active treatment program will continue as part of the long-term maintenance program.

3. If thinning to maintain or enhance the ecological value of the site is determined necessary by the CEMVN at this time, the Permittee will develop a thinning plan in coordination with the CEMVN. Thinning operations will be performed by the Permittee .

## **XIII. Monitoring and Reporting Protocols**

### **A. Monitoring**

The Permittee agrees to perform all work necessary to monitor the site to demonstrate compliance with the success criteria established in this PRMPA. The Permittee will monitor the site in the spring of each monitoring year using the following guidelines:



## **1. Continuous Monitoring Stations**

a. Immediately following initial planting of the mitigation area, the Permittee will randomly establish a continuous circular monitoring station for every 20 acres within the mitigation area. Each station will have a minimum area of  $1/20^{\text{th}}$  acre (radius = 26 feet). Stations will be identified with a permanent marker (e.g., an 8-foot PVC pipe anchored with a metal T post at plot center) and GPS coordinates will be recorded. A map depicting the location of the monitoring stations and a listing of the station coordinates is to be provided to CEMVN. All planted seedlings/saplings falling within each monitoring station will be marked with a numbered tag uniquely identifying that stem. The Permittee will document the number, species, height and diameters of tagged stems within each monitoring station immediately following initial planting.

b. Surveys of the continuous monitoring stations will occur immediately following vegetative plantings to establish baseline and then in year 1, 3, and 5. However, if monitoring for any given year determines that the site is not progressing as expected, monitoring will continue on an annual basis until it successfully meets or exceeds established milestones. After achieving the interim success criteria, monitoring will occur every 3 years until an average canopy coverage of 80% is obtained. If thinning is required after successfully achieving the long-term success criteria, the site will be surveyed prior to and following the first thinning operation following plantings.

c. The survey of the continuous monitoring stations will collect data to evaluate the survival rate of planted vegetation; number, species and growth rates (average heights and diameter). In addition to planted seedlings, surveys will include the number by species of volunteering trees, shrubs and woody vines. Surveys will also collect information regarding other colonizing plant species, the wetland plant status (scaled from obligate (OBL) to upland (UPL)) of each and the number by species of exotic/noxious species.

**2. Transects.** The permittee shall establish transects along planted rows to be used to determine overall survivorship of planted seedlings. Transect shall make-up approximately 3% of the total number of rows and arranged so that a representative sample of the entire track is obtained. The beginning and ending points of each transect shall be marked with a permanent marker (e.g., an 8-foot PVC pipe anchored with a metal T post) and GPS coordinates recorded. Transects will be surveyed to determine the number by species of planted seedlings within 60 days of planting to establish baseline information. Transects will be surveyed through successfully meeting the interim success criteria. Initial and interim transect surveys shall record the number by species of living seedlings, describe the general condition of the seedlings, and note size of any failed planting areas and provide possible reasons for planting failures.



3. The Permittee will collect data on hydrologic conditions as necessary to document evidence of wetland hydrology. Documentation will include descriptions of the upper 12 inches of the soil profile sufficient to demonstrate hydric properties.

4. The Permittee will complete a comprehensive floristic survey as part of the monitoring requirements to document attainment of the long-term success criteria.

## **B. Reporting Protocols**

**1. As-built Report:** An as-built report will be submitted to CEMVN within 60 days following completion of all the work required to restore or enhance special aquatic sites. The as-built report will describe in detail the work performed and provide a list of species planted and the number of each species. No deviation from the PRMPA may occur without prior approval from the CEMVN. The as-built report will include a discussion of the coordination with the CEMVN, a description of and reasons for any approved deviation. The as-built report shall provide:

- a. A survey showing finished grades and plantings.
- b. Survey data collected from the continuous monitoring stations and transects.

**2. Monitoring Reports:** The Permittee will submit reports documenting monitoring efforts to the CEMVN by July 1 of the year that the monitoring event occurs. Besides monitoring results for that monitoring year, reports will include a financial assurance report documenting withdrawals and deposits. The monitoring reports will follow the guidelines outlined here:

a. The monitoring report will include data sufficient for comparison to the performance standards found in this PRMPA. The Permittee should also include discussion of all activities which took place at the site. At a minimum, monitoring reports also include the following:

- 1) Digital images taken from ground level at each monitoring station and from elevated positions throughout the site to document overall conditions,
- 2) A description of the general condition of the seedlings, including the number and species of surviving seedlings in each monitoring station, the tag number and a discussion of likely causes for mortality,
- 3) A description of vegetative communities developing at each monitoring station,



4) A description of the generalized degree and distribution of exotic/invasive species and whether they are seed bearing trees or seedlings,

5) Identify measures to eradicate exotic/invasive species and document results of these efforts,

6) A general discussion of hydrologic conditions at monitoring stations, (documentation will include a wetland delineation approved by the CEMVN if previously determined to be a non-wetland).

7) A description of the condition of any applicable hydrology altering features (culverts, ditches, plugs, etc.), and

8) A description of wildlife usage at each monitoring station, including any herbivory problems if applicable.

**b. Financial Information.** The Permittee will provide copies of deposits and account statements for all financial assurance accounts associated with the Mitigation Area and for the Long-term Maintenance and Protection Fund. If any escrowed funds were used, the Permittee will include a narrative describing that use and supporting documentation (e.g., receipts).

#### **XIV. Financial Assurances**

##### **A. Financial Assurances Purpose**

Sufficient funds to ensure satisfactory completion of the work described in this PRMPA will be provided. The Permittee is establishing the Construction and Establishment financial assurance to assure sufficient funds are available to perform work required to construct and maintain the mitigation project through year 15 or canopy coverage equal to or greater than 80%. To accomplish these goals, sufficient funds to perform the restoration work will be deposited in an escrow account for the Mitigation Fund Permit Number MVN-2010-1148-CY, which will be administered by a federally insured depository that is "well capitalized" or "adequately capitalized" as defined in Section 38 of the Federal Deposit Insurance Act.

The Permittee will deposit \$172,853.63 in the Mitigation Area Fund to cover costs associated with "Construction and Establishment". The Construction portion of the account is \$95,631.85 and the Establishment portion of the account is \$77,221.78. As milestones are released, the money will be released back to the Permittee in accordance with the following.

1. Upon verification by the CEMVN that the initial success criteria have been achieved, the CEMVN shall advise the financial institution to release to the Permittee the amount of \$95,631.85.



2. Upon verification by the CEMVN that the initial success criteria has been achieved, the CEMVN shall advise the financial institution to release to the Permittee the amount of \$38,450.69 (i.e. Year 1 Costs).
3. Upon verification by the CEMVN that the interim success criteria have been achieved, the CEMVN shall advise the financial institution to release to the Permittee the amount of \$26,996.00.
4. When canopy closure has been achieved (approximately Year 15) and the CEMVN concurs that exotic/invasive vegetation encroachment has been sufficiently controlled, the remaining funds associated with the "Construction and Establishment" portion of the Mitigation Area Fund Account shall be released to the Permittee or to the long-term steward, if the Permittee has designated one.

## **XV. Adaptive Management Plan**

An adaptive management strategy, contingency, and remedial responsibilities shall be in place, and will be implemented in the event monitoring reveals that certain success criteria have not been met. In the event of a deficiency the Permittee shall provide a notice to the CEMVN. This notice shall include an explanation for the deficiency, and will outline specific practices and measures that will guide decisions for revising compensatory mitigation plans if needed.

### **A. Seedling Survivorship**

1. If survival is less than 250 trees per acre as determined by sampling or by observing high mortality at any location within the planted areas, or target species ratios are not met, the Permittee shall take appropriate actions, as recommended by the CEMVN, to address the causes of mortality and shall replace all dead seedlings with new seedlings of the appropriate species during the following planting season. Replanting, monitoring and reporting, as previously described, shall occur as needed to achieve and document the required one-year survival rate.
2. If the survival criterion is not met after three unsuccessful attempts, the CEMVN will convene a meeting with the Permittee to decide if replanting should continue. Should the CEMVN determine that achieving the required survival rate would not be likely; the Permittee shall be required to provide replacement mitigation for the increment of value that did not accrue within the unsuccessful areas within one year of this decision.
3. Year 5 monitoring shall verify seedling composition and survivorship goals established in this PRMPA. the Permittee shall implement remedial action, as deemed necessary by the CEMVN, to ensure attainment of Year 5 survivorship and composition criteria.



## **B. Contingencies for Hydrology**

If wetland hydrology is not documented by Year 5, the CEMVN shall document in the monitoring report those areas where attention is needed. The CEMVN may require the Permittee to conduct adaptive management measures in order to obtain adequate hydrology. With approval of the CEMVN, the Permittee would establish a means of increasing the amount of available water to the site.

## **C. Catastrophic Events**

Catastrophic events are defined here as a natural or human-caused event over which the Permittee has no control to prevent the damage from occurring. Examples of Natural Disasters includes, but are not limited to, a flood equal to or greater in magnitude than the 100-year flood event, earthquake, drought, debilitating disease, wildfire, depredation, regional pest infestation, or fluviomorphic change. A human-caused catastrophic event includes, but is not limited to, war, insurrection, riot, or other civil disorders, spill of a hazardous or toxic substance, or fire. A deliberate and unlawful act includes, but is not limited to, the dumping of a hazardous or toxic substance, or fire. A deliberate and unlawful act includes, but is not limited to, the dumping of a hazardous or toxic substance, as well as significant acts of vandalism or arson.

Following an event determined to be a Catastrophic Event by the CEMVN, the Permittee, in consultation with the CEMVN, shall identify the severity of the impacts and determine if measures necessary to remediate such impacts to the Mitigation Area will be necessary. The Permittee will be required to implement the adaptive management measures and remediate identified impacts within one year of the event. Subsequent adaptive management measures may be necessary following the conclusion of the remediation activities in consultation with the CEMVN.

The Permittee shall bear the financial responsibility for any and all remedial measures necessary to correct any deficiency caused by any means prior to successful attainment and verification of all Interim Success Criteria by the CEMVN. Interest accumulated in the Mitigation Area Fund may be used by the Permittee the Long-Term Steward or Holder to defray expenses associated with the remedial actions necessary.

## **XVI. Citations**

Allen, J.A., Keeland, B.D., Stanturf, J.A., Clewell, A.F., and H.E. Kennedy. 2001 (rev. 2004). A guide to bottomland hardwood restoration: US Geological Survey, Biological Resources Division Information and Technology Report USGS/BRD/ITR-2000-0011. USDA Forest Service, Southern Forest Research Station, General Technical Report SRS-40, 132 pp.

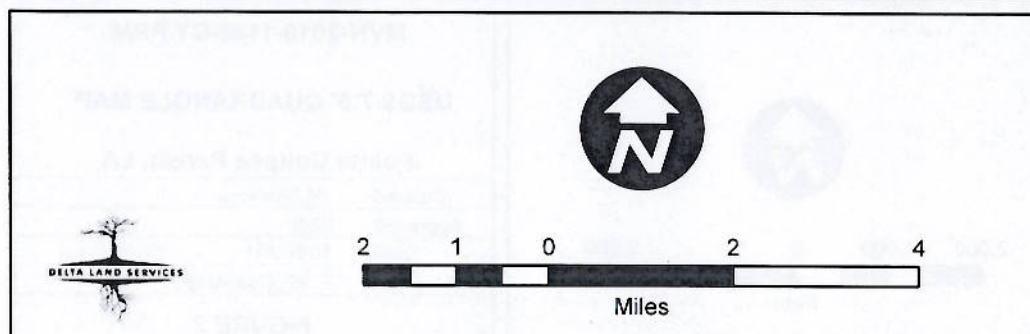
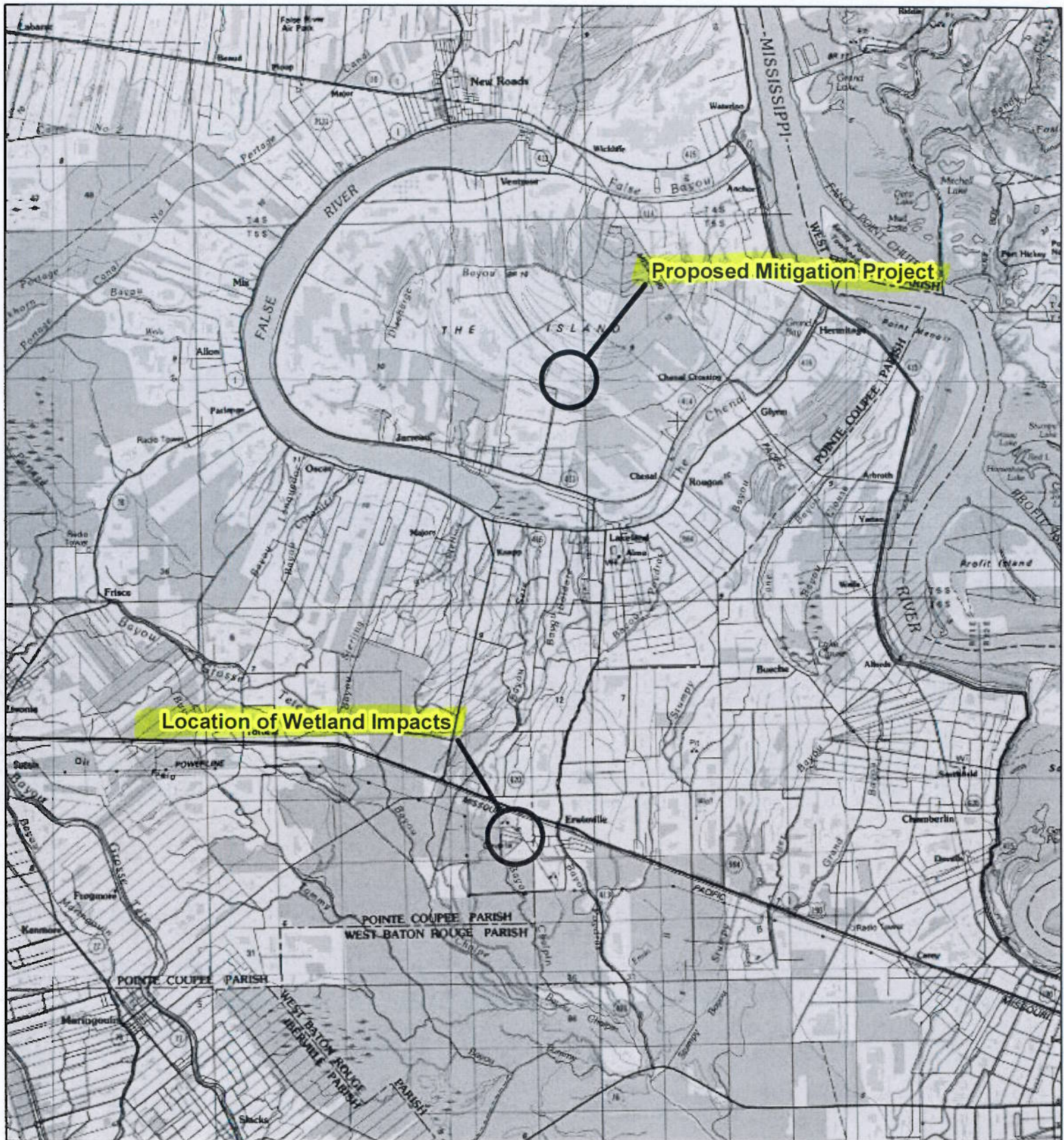


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- U.S. Fish and Wildlife Service. 2010. National Wetlands Inventory Wetlands Mapper [website]. U.S. Department of Interior, U.S. Fish and Wildlife Service. Accessed 23 March 2011. Available URL:[http:// 137.227.242.85/wetland/wetland.html](http://137.227.242.85/wetland/wetland.html)



## ATTACHMENT A: FIGURES





MVN-2010-1148-CY PRM
VICINITY MAP
Pointe Coupee Parish, LA
Created : JMJ/ArcView
Approved : DEB
Date : 10/5/2011
Map No. : F_01_VicinityMap.mxd
FIGURE 1



FIGURE 2





#### Legend

- Type 1 Bottomland Hardwood Re-establishment: 42.0 acres
- Type 2 Bottomland Hardwood Re-establishment: 66.8 acres
- Type 3 Bottomland Hardwood Re-establishment: 114.1 acres
- Type 1 Bottomland Hardwood Rehabilitation: 8.7 acres
- Type 3 Bottomland Hardwood Rehabilitation: 2.0 acres
- Bottomland Hardwood Hydric Inclusions: 3.3 acres
- Wildlife Openings (Servitude Acreage/Non-Mitigation): 7.8 acres
- Access Trails (Non-Mitigation): 3.8 acres



600 300 0 600  
Feet

MVN-2010-1148-CY PRM

#### MITIGATION FEATURES

Pointe Coupee Parish, LA

Created : JMJ/ArcView

Approved : DEB

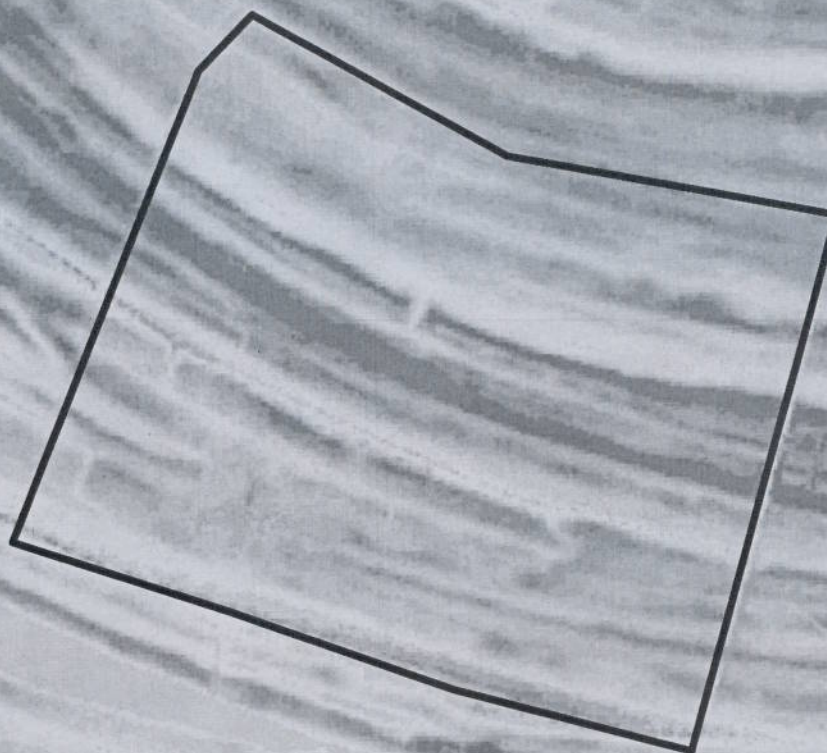
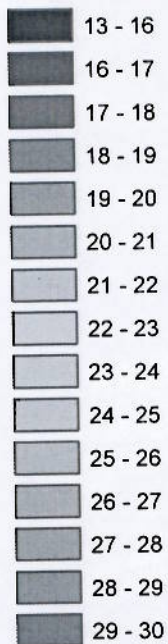
Date : 10/5/2011

Map No. : F\_03\_Mitigation

FIGURE 3



# Elevation (NAVD)



## Legend

 Mitigation Project Area (248.5 acres)



MVN-2010-1148-CY PRM

LIDAR ELEVATION MAP

Pointe Coupee Parish, LA

Created : JMJ/ArcView

Approved : DEB

Date : 10/5/2011

Map No. : LIDARMap.mxd

FIGURE 4





## Legend

 Mitigation Project Area (248.5 acres)



600 300 0 600  
Feet

MVN-2010-1148-CY PRM

1941 AERIAL PHOTOGRAPH

Pointe Coupee Parish, LA

Created : JMJ/ArcView

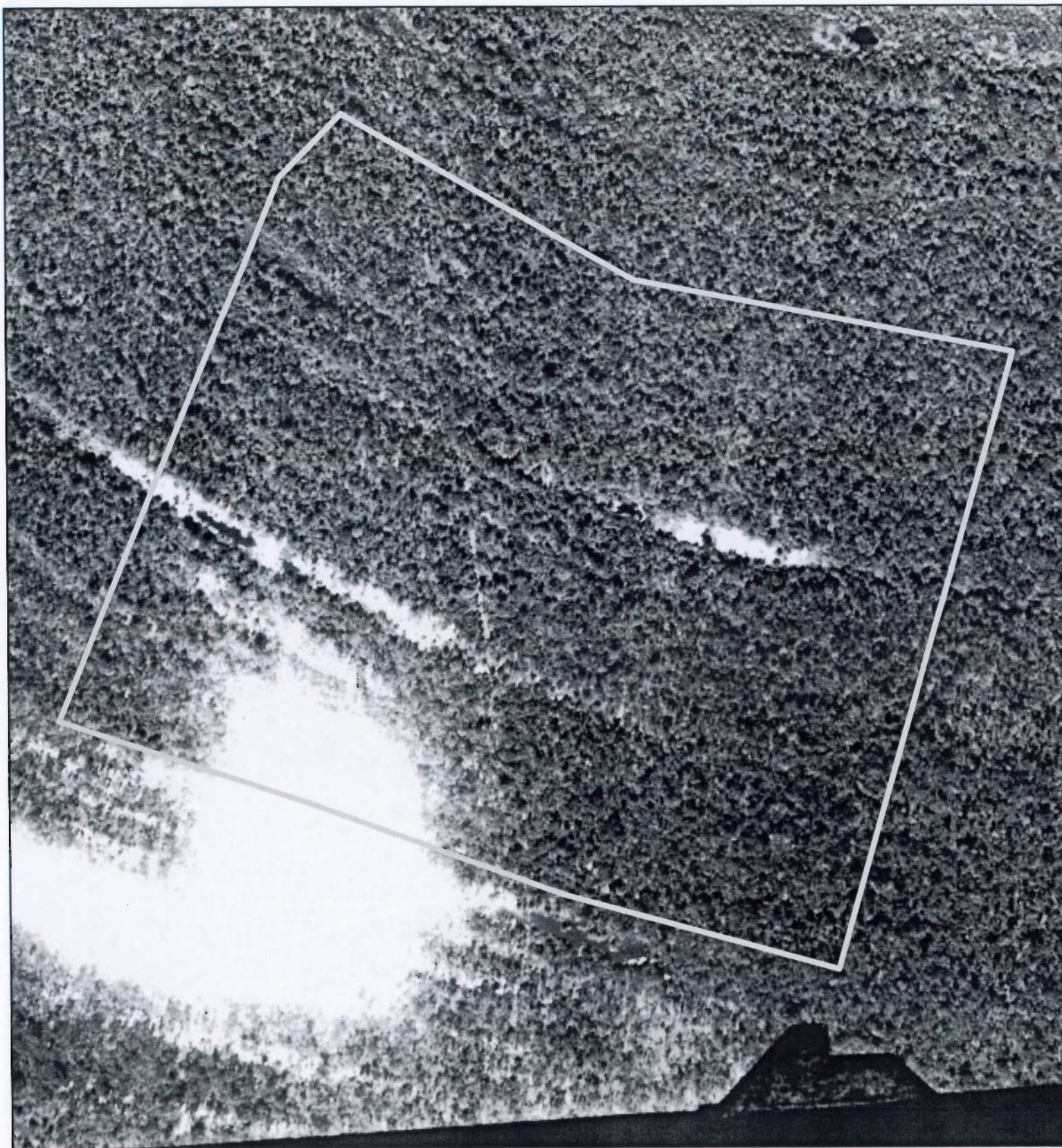
Approved : DEB

Date : 10/5/2011

Map No. : F\_05\_AerialPhotos

FIGURE 5





## Legend

 Mitigation Project Area (248.5 acres)



600 300 0 600  
  
 Feet

MVN-2010-1148-CY PRM

**1952 AERIAL PHOTOGRAPH**

**Pointe Coupee Parish, LA**

Created : JMJ/ArcView

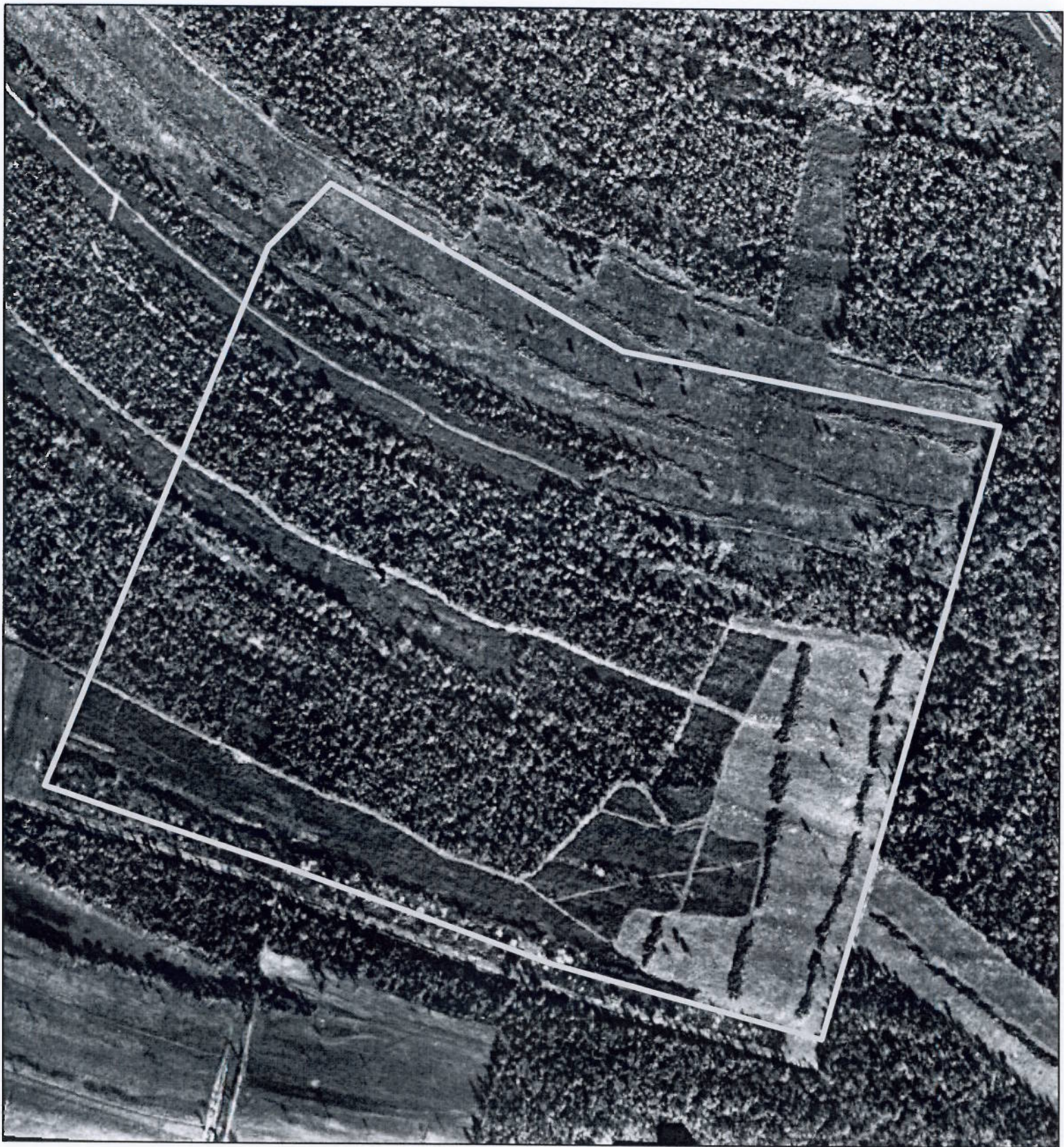
Approved : DEB

Date : 10/05/2011

Map No. : F\_06\_AerialPhotos

**FIGURE 6**





## Legend

 Mitigation Project Area (248.5 acres)



760 380 0 760  
Feet

MVN-2010-1148-CY PRM

1966 AERIAL PHOTOGRAPH

Pointe Coupee Parish, LA

Created : JMJ/ArcView

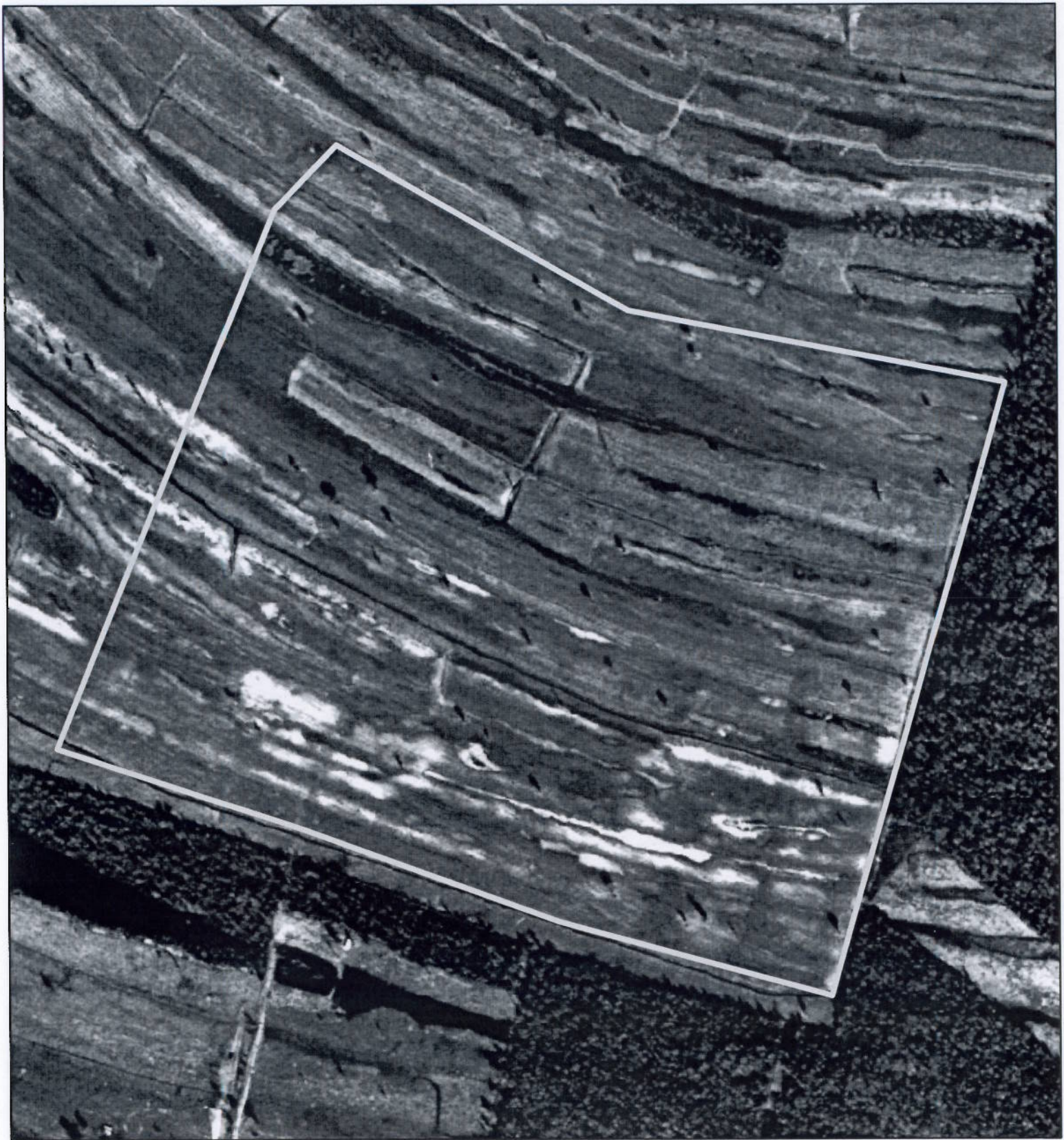
Approved : DEB

Date : 10/05/2011

Map No. : F\_07\_AerialPhotos

FIGURE 7





## Legend

 Mitigation Project Area (248.5 acres)



600 300 0 600  
Feet



MVN-2010-1148-CY PRM

**1972 AERIAL PHOTOGRAPH**

**Pointe Coupee Parish, LA**

Created : JMJ/ArcView

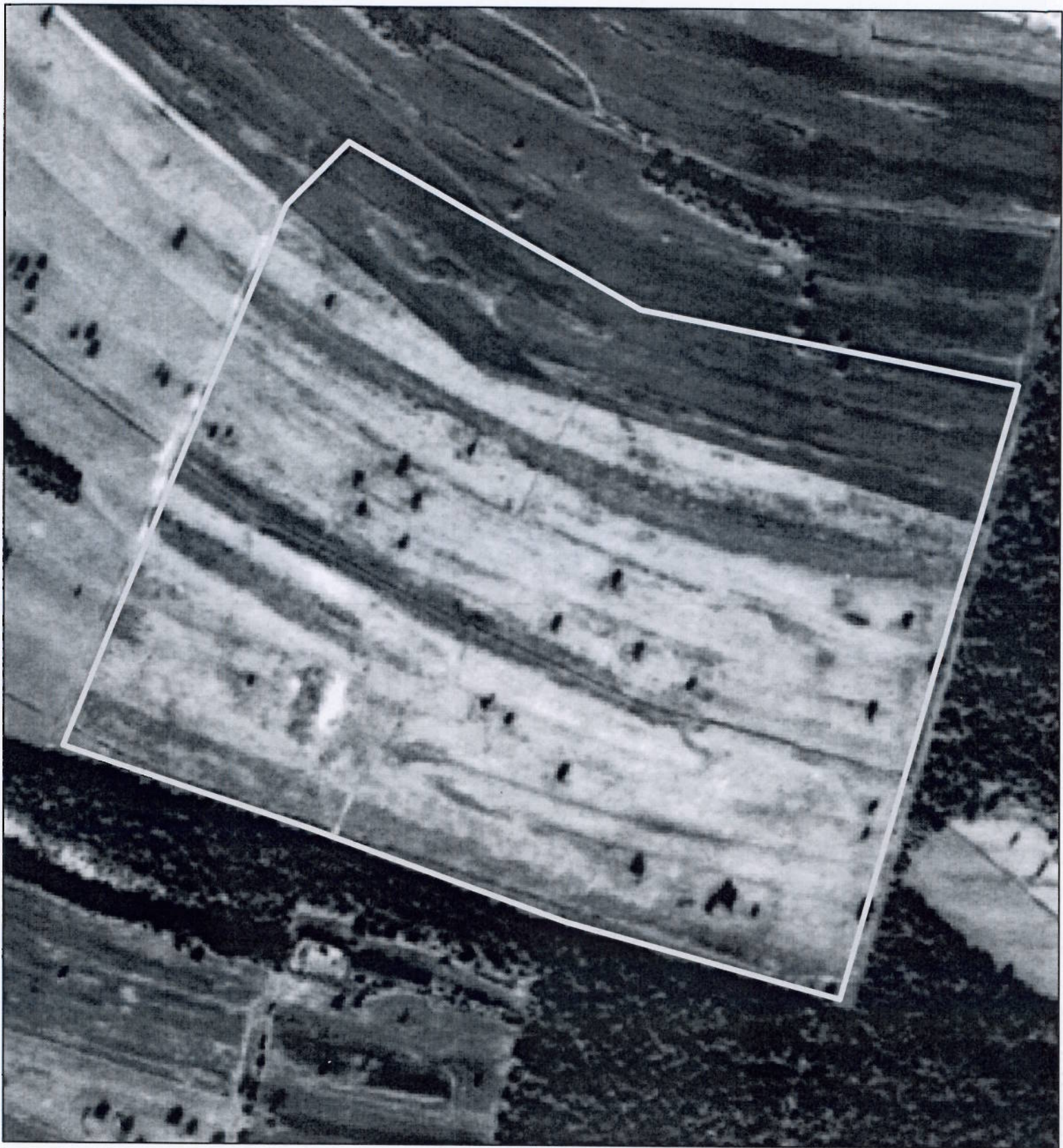
Approved : DEB

Date : 10/5/2011

Map No. : F\_08\_AerialPhotos

**FIGURE 8**





## Legend

 Mitigation Project Area (248.5 acres)



600 300 0 600  
Feet



MVN-2010-1148-CY PRM

**1983 AERIAL PHOTOGRAPH**

**Pointe Coupee Parish, LA**

Created : JMJ/ArcView

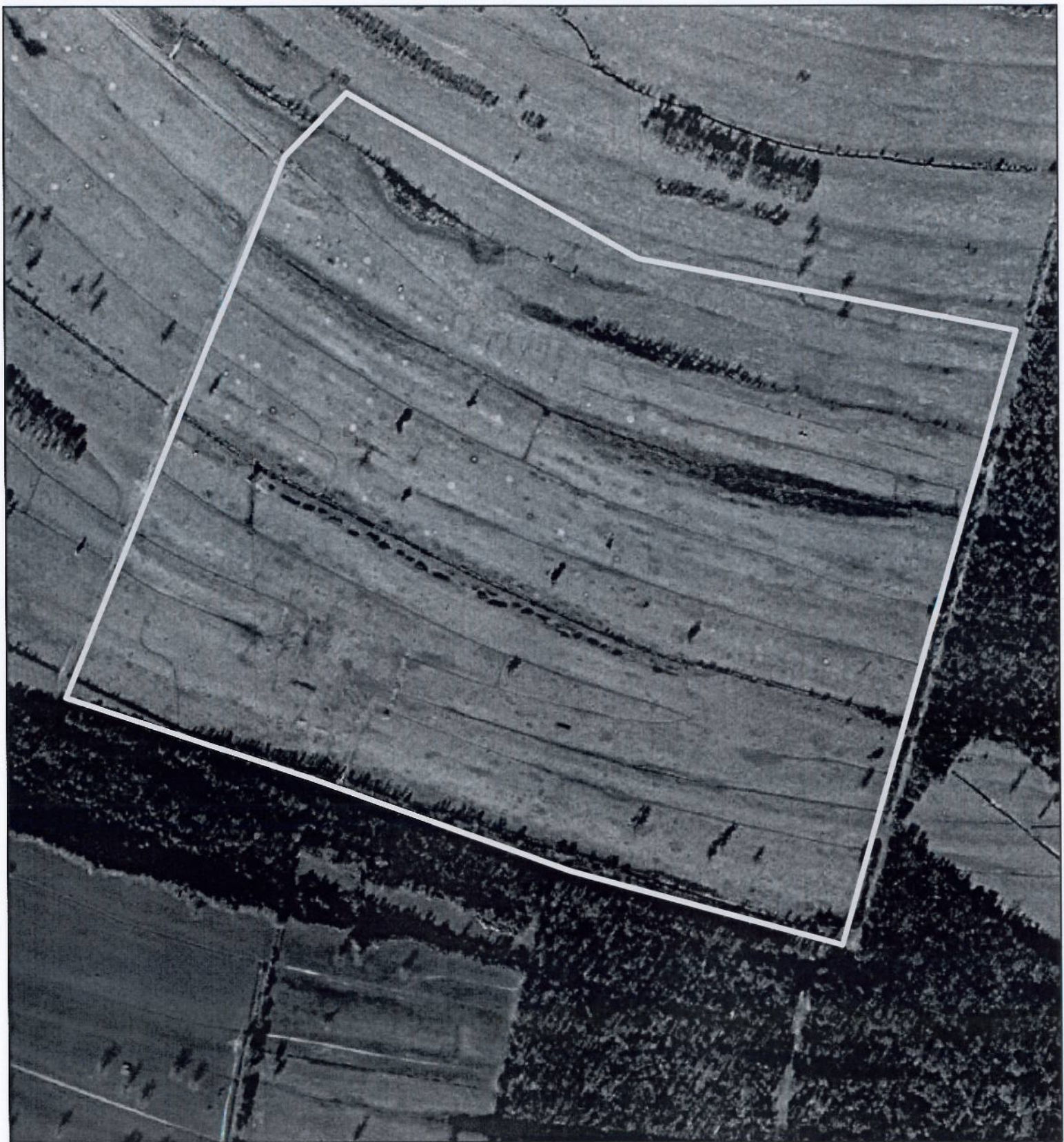
Approved : DEB

Date : 10/5/2011

Map No. : F\_09\_AerialPhotos

**FIGURE 9**






## Legend

 Mitigation Project Area (248.5 acres)



600 300 0 600  
  
 Feet



MVN-2010-1148-CY PRM

**1998 AERIAL PHOTOGRAPH**

**Pointe Coupee Parish, LA**

Created : JMJ/ArcView

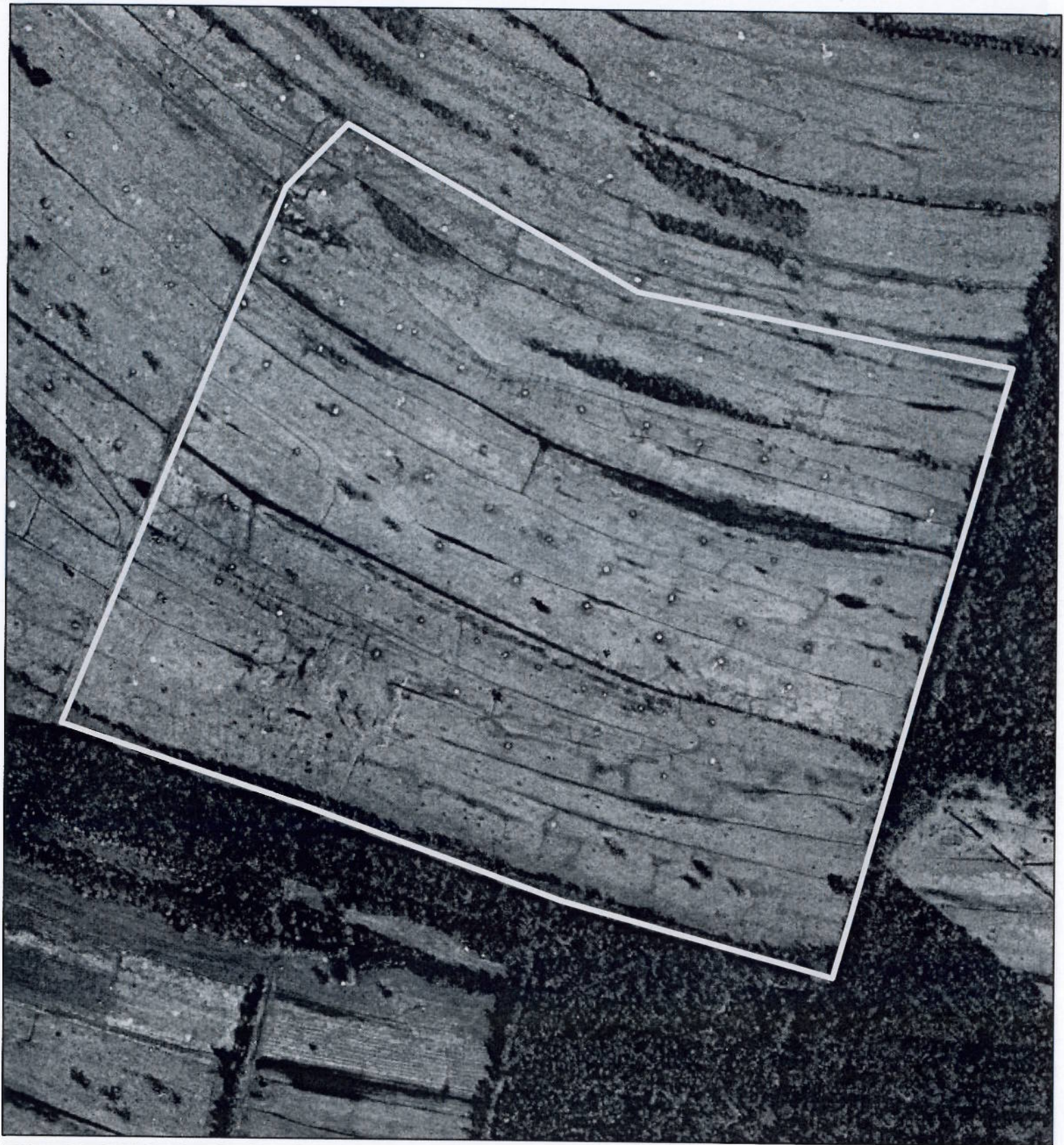
Approved : DEB

Date : 10/5/2011

Map No. : F\_10\_AerialPhotos

**FIGURE 10**





# Legend

 Mitigation Project Area (248.5 acres)



600 300 0 600  
Feet



MVN-2010-1148-CY PRM

2004 AERIAL PHOTOGRAPH

Pointe Coupee Parish, LA

Created : JMJ/ArcView

Approved : DEB

Date : 10/5/2011

Map No. : F\_11\_AerialPhotos

FIGURE 11





## Legend

 Mitigation Project Area (248.5 acres)



600 300 0 600  
Feet



MVN-2010-1148-CY PRM

**2010 AERIAL PHOTOGRAPH**

**Pointe Coupee Parish, LA**

Created : JMJ/ArcView

Approved : DEB

Date : 10/5/2011

Map No. : F\_12\_AerialPhotos

**FIGURE 12**











## Legend

-  Mitigation Project Area (248.5 acres)
-  DE: Dundee-Alligator complex undulating



600 300 0 600  
Feet

MVN-2010-1148-CY PRM

SSURGO SOILS MAP

Pointe Coupee Parish, LA

Created : JMJ/ArcView

Approved : DEB

Date : 10/5/2011



Map No. : F\_14\_Soils

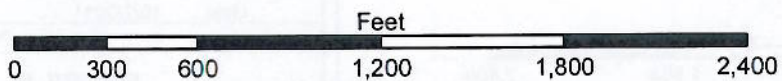
FIGURE 14





### Legend

-  Mitigation Project Area (248.5 acres)
-  Existing Drains (45,859 linear feet)



MVN-2010-1148-CY PRM

### EXISTING DRAINAGE

Pointe Coupee Parish, LA

Created : JMJ/ArcView

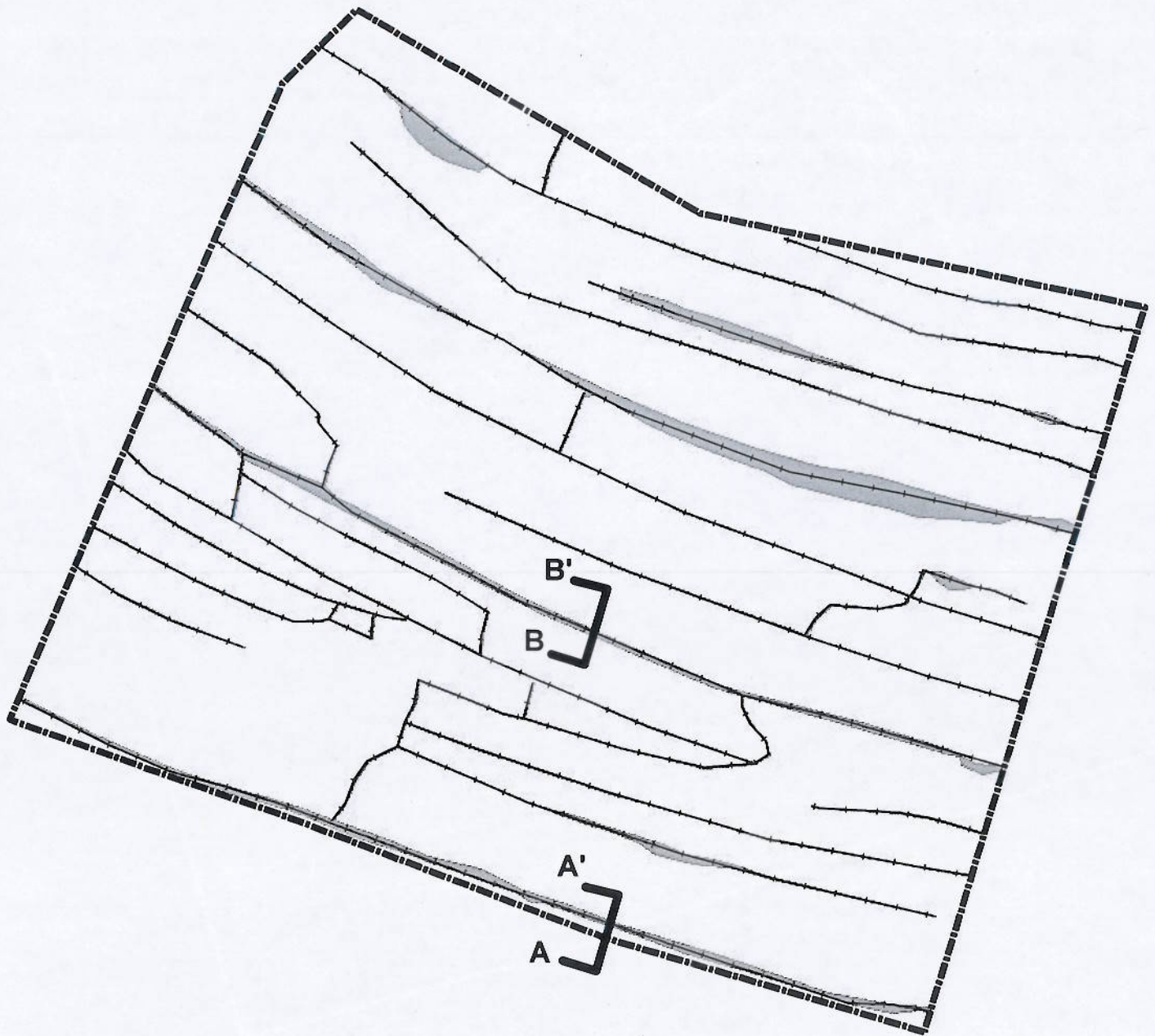
Approved : DEB

Date : 10/5/2011




Map No. : F\_15\_Drainage

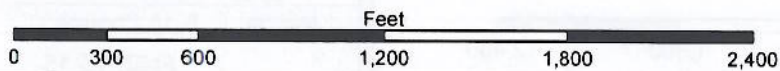
FIGURE 15





# Legend

-  Project Area (248.5 Acres)
-  Drains To Be Filled (45,859 linear feet)
-  Existing Wetlands



## MVN-2010-1148-CY PRM HYDROLOGIC RESTORATION PLAN VIEW

Pointe Coupee Parish, LA

Created : JMJ/ArcView

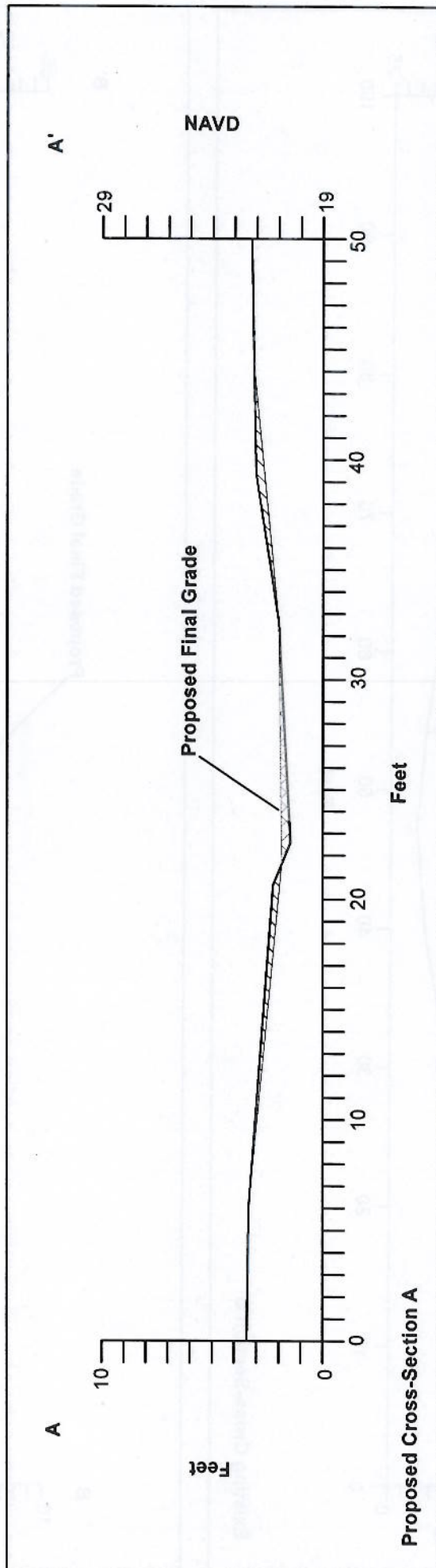
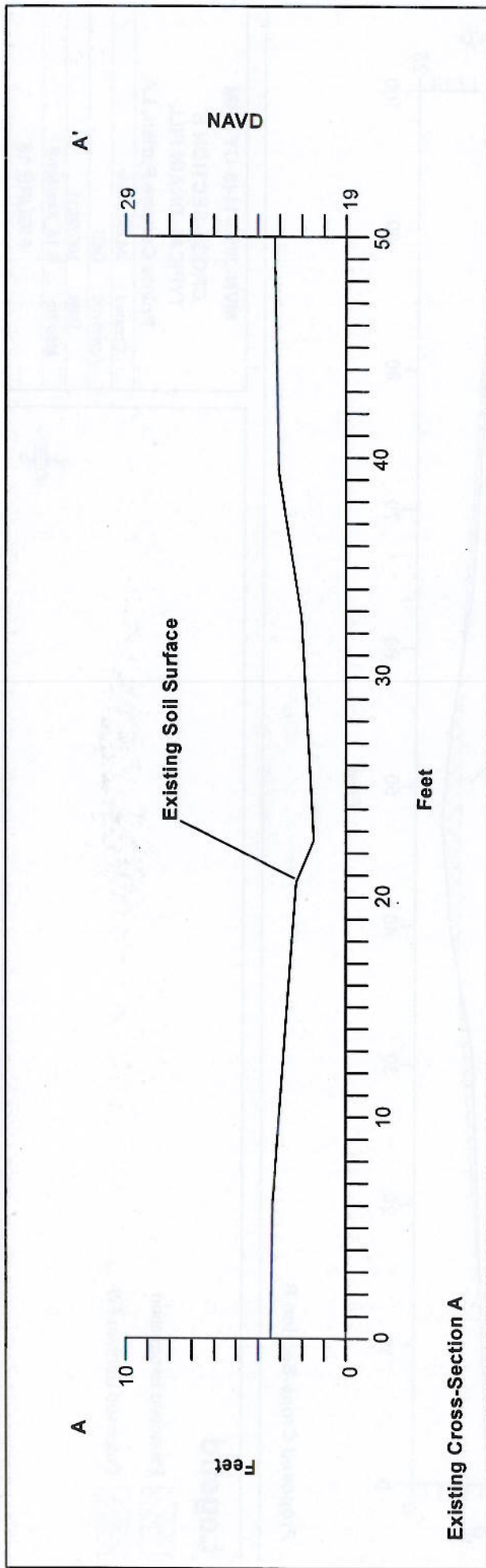
Approved : DEB

Date : 10/7/2011

Map No. : F-16\_HydrologicPlanView.mxd

FIGURE 16





**Legend**

- Proposed Excavation
- Proposed Earthen Fill

**Figure 17**

**Project Information:**

Project: MVN-2010-1148-CY PRM

Section: CROSS-SECTION A

Feature: TYPICAL DRAIN FILL

Location: Pointe Coupee Parish, LA

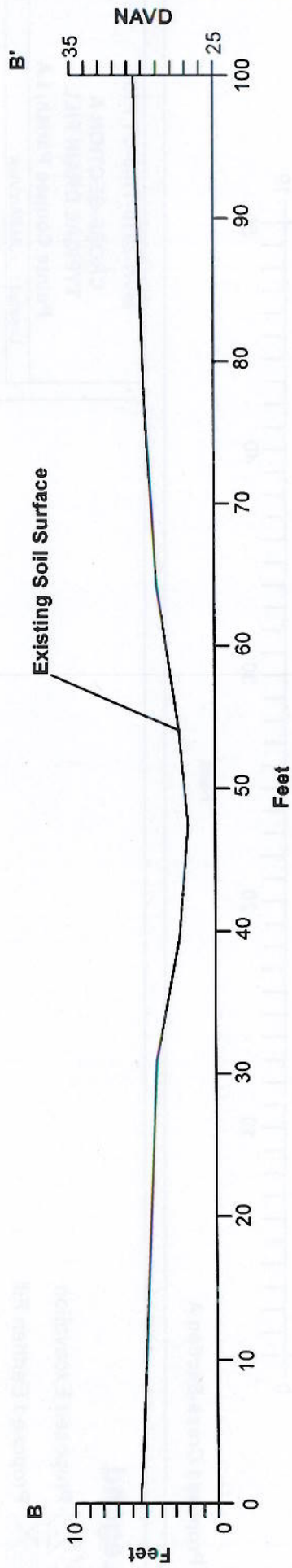
Created: JMJ/ArcView

Approved: DEB

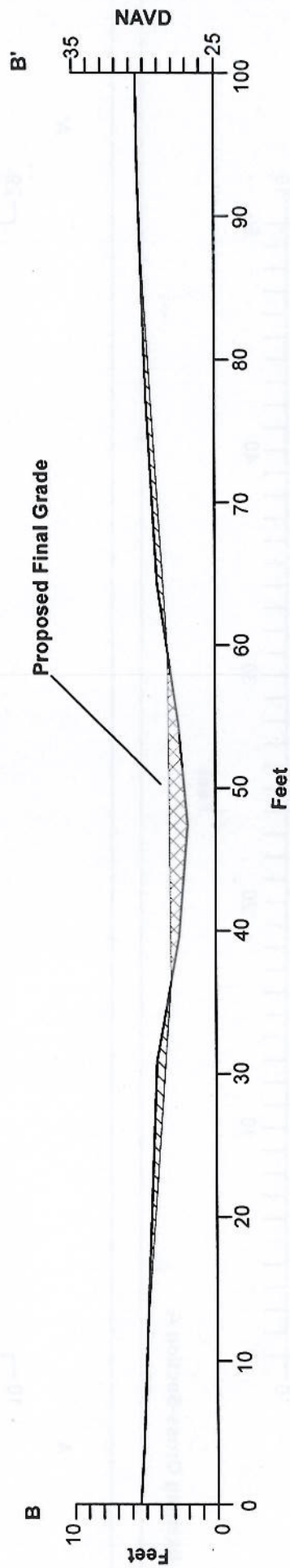
Date: 10/7/2011

Map No.: CrossSectionA.mxd






Existing Cross-Section B



Proposed Cross-Section B

### Legend

 Proposed Excavation

 Proposed Earthen Fill

MVN-2010-1148-CY PRM  
CROSS-SECTION B  
TYPICAL DRAIN FILL  
Pointe Coupee Parish, LA

Created : JMJ/ArcView

Approved : DEB

Date : 10/7/2011

Map No. : F-18\_XsectionB

FIGURE 18





## ATTACHMENT B: TITLE OPINION



LAW OFFICES OF  
**JEWELL & JEWELL**  
P.O. BOX 156  
143 EAST MAIN STREET, SUITE 3  
NEW ROADS, LOUISIANA 70760

J.P. JEWELL, JR. (1910-2007)  
JOHN WAYNE JEWELL  
STEPHEN P. JEWELL

TELEPHONE (225) 638-3311  
FAX (225) 638-8319

October 27, 2011

Delta Land Services, L.L.C.  
1090 Cinclare Drive  
Port Allen, Louisiana 70767

Re: Title Opinion; Jumonville Property  
Pointe Coupee Parish

Gentlemen:

As requested, I have examined an abstract of the indices to the conveyance and mortgage records of the Parish of Pointe Coupee, State of Louisiana, for the period commencing on December 10, 1947 and ending on July 6, 2011, prepared by Beta Land Services, L.L.C., and I also personally examined the indices to said conveyance and mortgage records for the period commencing on July 6, 2011 and ending on October 25, 2011, all pertaining to the following described property, to-wit:

A certain tract or parcel of land, situated in Section 97, Township 5 South, Range 11 East, and Section 101, Township 5 South, Range 10 East, in Pointe Coupee Parish, Louisiana, which tract or parcel of land contains 248.47 acres and is more particularly shown and depicted on a plat of survey made by Charles R. St. Romain, R.P.L.S., dated June 28, 2011, and revised October 13, 2011, which plat of survey is made a part hereof by reference for greater certainty of description. Said tract or parcel of land is more particularly described according to said plat of survey as follows:

For a point of reference commence at a cross-tie marking the apparent corner common to Section 55, Township 5 South, Range 10 East, and Sections 18, 97 and 98, Township 5 South, Range 11 East, thence proceed North 33° 34' 17" East a distance of 105.03 feet to a calculated point and the point of beginning (P.O.B.); from the P.O.B. run North 16° 48' 23" East a distance of 3,007.60 feet to a calculated point; thence North 78° 17' 13" West a distance of 1,805.64 feet to a



calculated point; thence North 59° 31' 24" West a distance of 1,575.42 feet to a calculated point; thence South 45° 14' 25" West a distance of 417.66 feet to a calculated point; thence South 23° 09' 50" West a distance of 2,749.19 feet to a calculated point; thence South 70° 53' 46" East a distance of 1,206.76 feet to a calculated point; thence South 69° 20' 43" East a distance of 1,299.89 feet to a calculated point; thence South 73° 51' 50" East a distance of 1,329.92 feet back to the P.O.B., consisting of 248.47 acres.

Based on the aforementioned abstract to the indices to said records during said time period, and my update of same through October 25, 2011, it is my opinion that as of said date a good, valid and merchantable title to the hereinabove described property was vested in fee simple in:

**SUCCESSION of JOHN E. JUMONVILLE** (sometimes also known as John E. Jumonville, Sr. or J. E. Jumonville, Sr.),

and

**CLAUDE COULON JUMONVILLE;**

in the proportions of an undivided three-fourths (3/4ths) interest to the Succession of John E. Jumonville, and an undivided one-fourth (1/4th) interest to Claude Coulon Jumonville;

free from mortgages, liens, encumbrances or defects, except:

1. A multiple indebtedness mortgage by Succession of John E. Jumonville, Sr. and Claude Coulon Jumonville, dated February 20, 2003, securing an indebtedness to Peoples Bank and Trust Company of Pointe Coupee, up to a maximum amount of \$50,000,000.00. Said mortgage is filed and recorded under Entry No. 207 of Mortgage Book 324, records of Pointe Coupee Parish, Louisiana.

2. A multiple indebtedness mortgage by Claude Coulon Jumonville, dated February 25, 2004, securing an indebtedness to Peoples Bank and Trust Company of Pointe Coupee, up to a maximum amount of \$50,000,000.00. Said mortgage is filed and recorded under Entry No. 146 of Mortgage Book 347, records of Pointe Coupee Parish, Louisiana.



3. A multiple indebtedness mortgage by Claude Coulon Jumonville, dated December 22, 2005, securing an indebtedness to Peoples Bank and Trust Company of Pointe Coupee, up to a maximum amount of \$50,000,000.00. Said mortgage is filed and recorded under Entry No. 182 of Mortgage Book 378, records of Pointe Coupee Parish, Louisiana.

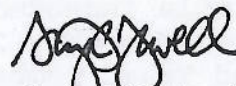
No opinion is rendered by the undersigned as to the ownership of any oil, gas or other minerals or mineral rights in, on, under or otherwise affecting the hereinabove described property; nor as to any other oil, gas or mineral servitudes, leases or other matters pertaining to said property.

This opinion does not protect you from or against: (1) Any encumbrances, encroachments, boundary line disputes or other matters which may be reflected by an accurate current survey of the subject property; (2) Rights or claims of parties in possession of the subject property not shown by the public records; (3) Any lien, or right to a lien, for services, labor or materials heretofore or hereafter furnished, imposed by law and not shown by the public records; (4) The exercise of governmental zoning authority; (5) The exercise of inheritance rights of illegitimate children; (6) The results or consequences of any fraudulent statements or acts, or acts of forgery, in any way related to ownership of or title to the subject property; (7) Any claim which may be asserted by the State of Louisiana or any other governmental authority to any part of the subject property as being part of the bottom, bed and/or bank of a navigable body of water; (8) The results which may be occasioned by the involuntary or voluntary filing of a petition for bankruptcy by any current, former or future owner of the subject property; or (9) Any other matter which is not shown by the public records.

Should you have any questions or comments about this matter, please give me a call.

With kindest regards, I remain,

Yours truly,



Stephen P. Jewell



# ATTACHMENT C: MODIFIED CHARLESTON METHOD

Activity	Frequency	Duration	Location	Notes
Site Preparation	1 time	1 day	Site 1	Clearing and grading
Foundation Work	1 time	2 days	Site 1	Excavation and pouring
Roofing	1 time	1 day	Site 1	Shingles and flashing
Interior Finishing	1 time	3 days	Site 1	Drywall, paint, and trim
Exterior Finishing	1 time	1 day	Site 1	Landscaping and siding
Final Inspection	1 time	1 day	Site 1	Permit completion

Activity	Frequency	Duration	Location	Notes
Site Preparation	1 time	1 day	Site 2	Clearing and grading
Foundation Work	1 time	2 days	Site 2	Excavation and pouring
Roofing	1 time	1 day	Site 2	Shingles and flashing
Interior Finishing	1 time	3 days	Site 2	Drywall, paint, and trim
Exterior Finishing	1 time	1 day	Site 2	Landscaping and siding
Final Inspection	1 time	1 day	Site 2	Permit completion



MOD # MCM 2010

**Adverse Impacts Table**

CEMVN Permit Number: MVN 2010-1148-CY

Total wetland Area (Acres)

Impacted by Project: 91.9

Impact HUC: 08070300

Impact Basin:

Terrebonne

(Comments)

**Table 1: Required Mitigation Credits Worksheet**

Factor	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
Priority Category	Primary	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)
Existing Habitat Condition	Condition 1	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)
Existing Hydrologic Condition	Condition 2	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)
Duration	Over 10	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)
Dominant Impact	Dredge	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)
Cumulative Impact	Medium	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)

Factor	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
Priority Category	3.0	0.0	0.0	0.0	0.0	0.0
Existing Habitat Condition	3.0	0.0	0.0	0.0	0.0	0.0
Existing Hydrologic Condition	2.4	0.0	0.0	0.0	0.0	0.0
Duration	1.0	0.0	0.0	0.0	0.0	0.0
Dominant Impact	2.5	0.0	0.0	0.0	0.0	0.0
Cumulative Impact	0.5	0.0	0.0	0.0	0.0	0.0
Sum of Factor $R = \sum r$	12.4	0.0	0.0	0.0	0.0	0.0
Size in Acres (AA)	91.9	0.0	0.0	0.0	0.0	0.0
$R \times AA =$	1135.8	0.0	0.0	0.0	0.0	0.0



MOD # MCM 2010

**Table 2B: Proposed Restoration/Enhancement Mitigation Worksheet**

Mitigation Project Name:

MVN 2010-1148-CY PRM

Mitigation Project Size (Acres) Include Wetlands:

Non-wetlands and Buffer Areas: 248.5

Mitigation Project HUC: 08070300

Mitigation Project Basin: Terrebonne

Impacted HUC: 08070300

Mitigation Project in the same basin as the Impact: Yes

Proximity Factor: 1.0

Comments:

	Factors	Area 1	Area 2	Area 3	Area 4	Area 5
Net Improvement	Mitigation Type	Re-establishment I	Rehabilitation I	(Select an Option)	(Select an Option)	(Select an Option)
	Maintenance/ Management Requirement	Self-Sustaining	Self-Sustaining	(Select an Option)	(Select an Option)	(Select an Option)
	Control	Conservation Servitude	Conservation Servitude	(Select an Option)	(Select an Option)	(Select an Option)
	Temporal Lag	Over 20	Over 20	(Select an Option)	(Select an Option)	(Select an Option)
	Credit Schedule	Schedule 2	Schedule 2	(Select an Option)	(Select an Option)	(Select an Option)
	Kind	Category 1	Category 1	(Select an Option)	(Select an Option)	(Select an Option)
	Location Relative to Impact	Zone 2	Zone 2	(Select an Option)	(Select an Option)	(Select an Option)
Negative Influences on the mitigation site	Commercial/Residential Development	No Impact	No Impact	No Impact	No Impact	No Impact
	Oil & gas activities	No Impact	No Impact	No Impact	No Impact	No Impact
	Size	<250 >100 acres	<250 >100 acres	>500 acres	>500 acres	>500 acres
	Utility Corridors	No Impact	No Impact	No Impact	No Impact	No Impact
	Transportation Corridors	No Impact	No Impact	No Impact	No Impact	No Impact

	Factors	Area 1	Area 2	Area 3	Area 4	Area 5
Net Improvement	Mitigation Type * Maintenance/ Management Requirement					
		4.0	3.0	0.0	0.0	0.0
	Control	0.4	0.4	0.0	0.0	0.0
	Temporal Lag	-0.3	-0.3	0.0	0.0	0.0
	Credit Schedule	0.3	0.3	0.0	0.0	0.0
	Kind	0.4	0.4	0.0	0.0	0.0
	Location Relative to Impact	0.3	0.3	0.0	0.0	0.0
	Subtotal	5.1	4.1	0.0	0.0	0.0
Negative Influences on the mitigation site	Commercial/Residential Development	0.0	0.0	0.0	0.0	0.0
	Oil & gas activities	0.0	0.0	0.0	0.0	0.0
	Size	-0.2	-0.2	0.0	0.0	0.0
	Utility Corridors	0.0	0.0	0.0	0.0	0.0
	Transportation Corridors	0.0	0.0	0.0	0.0	0.0
	Sum of negative impacts	-0.2	-0.2	0.0	0.0	0.0
	Sum of m Factors	4.9	3.9	0.0	0.0	0.0
	Size of Area (Acres)	222.9	10.7	0.0	0.0	0.0
	M x A =	1092.2	41.7	0.0	0.0	0.0
Acreage required for Permittee-responsible Mitigation project using required credits calculated in Adverse impact Worksheet.		231.8	0.0	0.0	0.0	0.0

Total Restoration/Enhancement Credits =  $\sum (M \times A) =$ 

1133.9

Total Available including buffers

1135.9

Average Credit Per Acre =

4.9

	Buffers	Non-hydric inclusions	Hydric Inclusions
Credits per acre (M)	0.2	0.4	0.6
Size in Acres (A)	0.0	0.0	3.3
M x A =	0.0	0.0	2.0
Credits added to bank =			2.0



## ATTACHMENT D: PRELIMINARY JURISDICTIONAL DETERMINATION





DEPARTMENT OF THE ARMY  
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 60267  
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO  
ATTENTION OF

JUL 26 2011

Operations Division  
Surveillance and Enforcement Section

Mr. Jace M. Jarreau  
Delta Land Services, LLC  
1090 Cinclare Drive  
Port Allen, Louisiana 70767

Dear Mr. Jarreau:

Reference is made to your request for a U.S. Army Corps of Engineers' (Corps) jurisdictional determination on property located in Sections 55 and 101, Township 5 South, Range 10 East, and Sections 7, 18, 97 and 98, Township 5 South, Range 11 East, Pointe Coupee Parish, Louisiana (enclosed map). Specifically, this property is identified as a proposed mitigation site on the Ponderosa Ranch, containing 2109.7 acres near False River in Ventress, Louisiana.

Based on review of recent maps, aerial photography, soils data, the information provided with your request, and a brief field inspection conducted on June 22, 2011, we have determined that part of the property is wetland and may be subject to Corps' jurisdiction. The approximate limits of the wetland are designated in red on the map. A Department of the Army (DA) permit under Section 404 of the Clean Water Act will be required prior to the deposition or redistribution of dredged or fill material into wetlands that are waters of the United States. Additionally, a DA permit will be required if you propose to deposit dredged or fill material into other waters subject to Corps' jurisdiction. Other waters that may be subject to Corps' jurisdiction are indicated in blue on the map.

This delineation/determination has been conducted to identify the limits of the Corps' Clean Water Act jurisdiction for the particular site identified in your request. This delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If the property owner or tenant is a USDA farm participant, or anticipates participation in USDA programs, a certified wetland determination should be requested from the local office of the Natural Resources Conservation Service prior to starting work.

You are advised that this preliminary jurisdictional determination is valid for a period of 5 years from the date of this letter unless new information warrants revision prior to the expiration date or the District Commander has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.

Should there be any questions concerning these matters, please contact Mr. Gary Couret at (337) 291-3042 and reference our Account No. MVN-2011-00999-SC. If you have specific



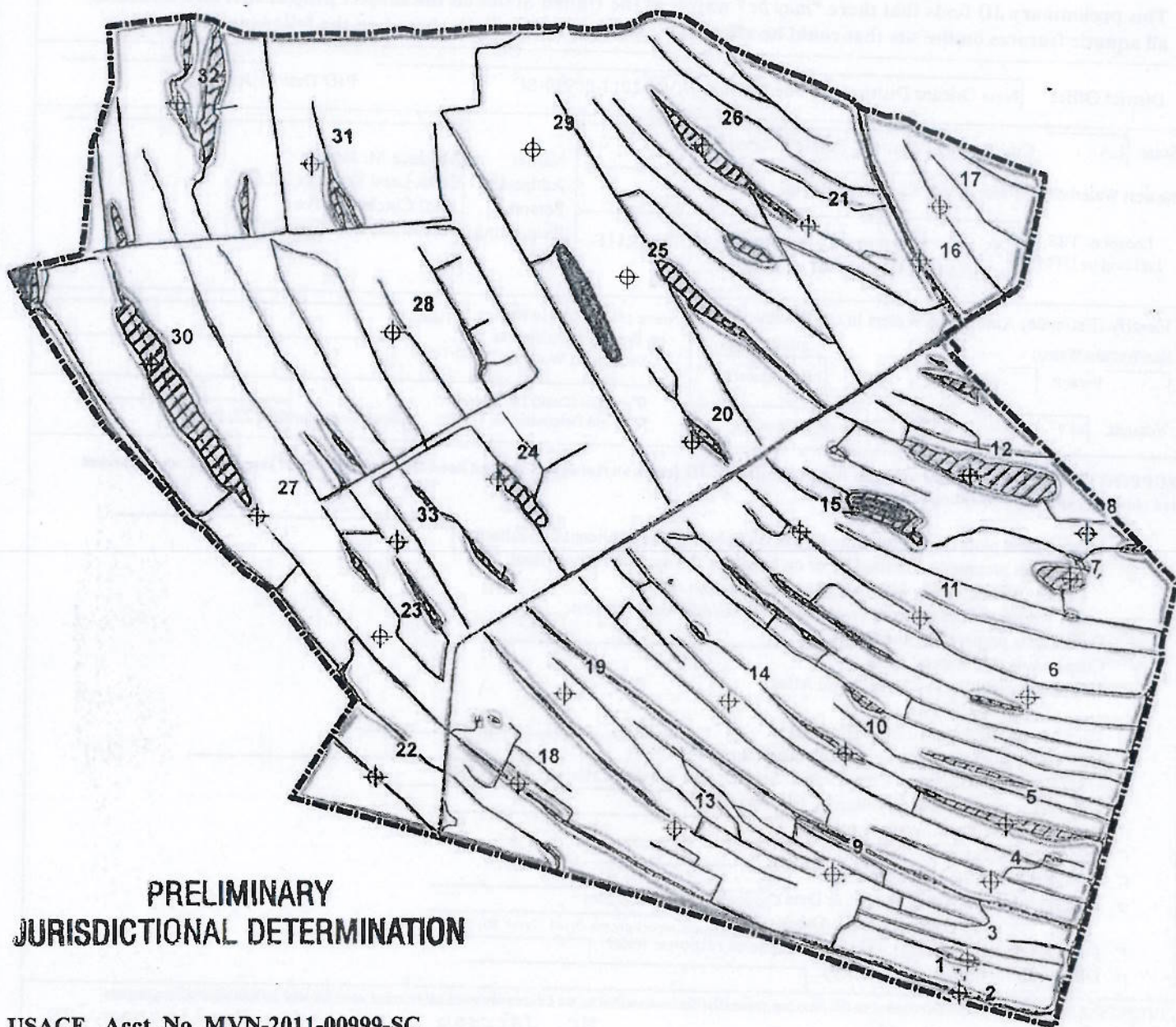
questions regarding the permit process or permit applications, please contact Dr. James Barlow of our Special Projects and Policy Team at (504) 862-2250. The New Orleans District Regulatory Branch is committed to providing quality and timely service to our customers. In an effort to improve customer service, please complete and return the enclosed Customer Service Survey or complete the survey on our web site at <http://per2.nwp.usace.army.mil/survey.html>.

Sincerely,

Pete J. Serio  
Chief, Regulatory Branch

Enclosures










## PRELIMINARY JURISDICTIONAL DETERMINATION

**USACE Acct. No. MVN-2011-00999-SC**

For J. Jarreau, Delta Land Services, LLC. Lat. 30.648625, Long. -91.413637  
Sections 55 & 101, T5S, R10E and Sections 7, 18, 97 & 98, T5S, R11E,  
Pointe Coupee Parish, La., 6-22-11gmc PSV

### Legend

-  Project Area (2,109.7 Acres)
-  Sec. 404 Wetlands (99.7 Acres)
-  Other Waters of the U.S. (15.3 Acres) Sec. 404
-  Data Points
-  Nonwetland



1,600 800 0 1,600  
Feet

Ponderosa Ranch

### WETLAND DELINEATION MAP

Pointe Coupee Parish, LA

Created : JMJ/ArcView

Approved : DEB

Date : 3/15/2011

Map No. : DelineationMap.mxd

FIGURE 3



## PRELIMINARY JURISDICTIONAL DETERMINATION FORM

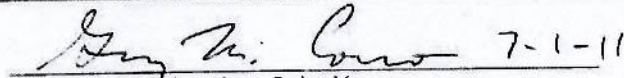
This preliminary JD finds that there "may be" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

District Office	New Orleans District	File/ORM #	MVN-2011-00999-SC	PJD Date:	Jul 1, 2011
State	LA	City/County	Ventress, Pointe Coupee Parish	Name/	Mr. Jace M. Jarreau
Nearest Waterbody:	False River, Discharge Bayou			Address of	Delta Land Services, LLC
Location: TRS, Lat/Long or UTM:	S 55, 101, T5S, R10 E, & S 7, 18, 97, 98, T5S, R11 E Lat. 30.648625, Long. -91.413637			Person	1090 Cinclare Drive
				Requesting	Port Allen, Louisiana 70767
				PJD	
Identify (Estimate) Amount of Waters in the Review Area:				Name of Any Water Bodies Tidal:	
Non-Wetland Waters:				on the Site Identified as	
Stream Flow:				Section 10 Waters: Non-Tidal:	
linear ft width 15.3 acres Per. (seasonal)					
Wetlands: 99.7 acre(s) Cowardin Class: Palustrine, emergent				<input checked="" type="checkbox"/> Office (Desk) Determination	
				<input checked="" type="checkbox"/> Field Determination: Date of Field Trip: Jun 22, 2011	

**SUPPORTING DATA:** Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite quad name: New Roads
- ☒ USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS WSS
- ☐ National wetlands inventory map(s). Cite name:
- ☐ State/Local wetland inventory map(s):
- ☐ FEMA/FIRM maps:
- ☐ 100-year Floodplain Elevation is:
- ☒ Photographs: ☒ Aerial (Name & Date): SONRIS, 1998, 2004 & 2008
  - ☒ Other (Name & Date): Consultant's report photos dated March 2011.
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Other information (please specify):

**IMPORTANT NOTE:** The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

  
Signature and Date of Regulatory Project Manager  
(REQUIRED)

Mr. Jarreau requested a Preliminary JD  
by letter dated April 12, 2011

Signature and Date of Person Requesting Preliminary JD  
(REQUIRED, unless obtaining the signature is impracticable)

### EXPLANATION OF PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS:

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.



## ATTACHMENT E: FINANCIAL ASSURANCES AND LONG-TERM MANAGEMENT ANALYSIS

Category	Item	Value	Unit	Notes
Construction	Excavation and Foundation	150,000	Dollars	
Construction	Structural Steel Erection	250,000	Dollars	
Construction	Roofing and Siding	100,000	Dollars	
Construction	Interior Finishes	200,000	Dollars	
Construction	Exterior Finishes	50,000	Dollars	
Construction	Site Work and Landscaping	75,000	Dollars	
Construction	Permit Fees	10,000	Dollars	
Construction	Contingency	50,000	Dollars	
Construction	<b>Total Construction</b>	<b>885,000</b>	<b>Dollars</b>	
Operation and Maintenance	Annual Maintenance	10,000	Dollars	
Operation and Maintenance	Utilities	5,000	Dollars	
Operation and Maintenance	Insurance	20,000	Dollars	
Operation and Maintenance	Security	15,000	Dollars	
Operation and Maintenance	Other	10,000	Dollars	
Operation and Maintenance	<b>Total O&amp;M</b>	<b>60,000</b>	<b>Dollars</b>	
Reserve Fund	Reserve Fund	100,000	Dollars	
<b>Total</b>	<b>Total Project Cost</b>	<b>1,045,000</b>	<b>Dollars</b>	



Cost for  
USACE Permit MVN-2010-1148-CY PRM

Item	Units	Unit Values	Price Per Unit	Total Cost
Boundary Maintenance	Miles	2.54	\$ 150.00	\$ 381.00
Invasive Species Control	Acre	236.9	\$ 90.00	\$ 21,321.00
Invasive Species Control Mobilization	Fixed	Fixed	Fixed	\$ 100.00
Invasive Species Control	Acres	236.9	\$ 90.00	\$ 21,321.00
Inspector Rate	Day	1	\$ 640.00	\$ 640.00
Inspector Per Diem and Travel	Day	1	\$ 150.00	\$ 150.00
Inspections	Day	1	\$ 790.00	\$ 790.00
Taxes on Bank Acreage	Acre	248.5	\$ 3.00	\$ 745.50
Planted Acreage	Acre	233.6	NA	NA
Planting Rate	Trees/Acre	538.0	NA	NA
Seedling Cost	Seedling	125676.8	\$ 0.22	\$ 27,648.90
Seedling Installation Rate	Seedling	125676.8	\$ 0.17	\$ 21,365.06
Planting Cost	Seedling	125676.8	\$ 0.39	\$ 49,013.95
Earth Moving	Cubic Yards	7016.0	\$ 2.00	\$ 14,032.00
Site Prep and Preemergent Spray	Acres	233.6	\$ 120.00	\$ 28,032.00
Admin: Ecological Director	Day	1.0	\$ 1,000.00	\$ 1,000.00
Admin: Senior Ecologist	Day	1.0	\$ 800.00	\$ 800.00
Admin: Field Biologist	Day	1.0	\$ 600.00	\$ 600.00
Admin: Expenses Per Person	Day	1.0	\$ 150.00	\$ 150.00
Credit Acreage	Acres	236.9	NA	NA



Construction Costs for  
USACE Permit MVN-2010-1148-CY PRM

<i>Item</i>	<i>Units</i>	<i>Unit Values</i>	<i>Price Per Unit</i>	<i>Cost</i>
Hydrology Restoration	Cubic Yards	7016.0	\$ 2.00	\$ 14,032.00
Site Prep and Preemergent Spray	Acres	233.6	\$ 120.00	\$ 28,032.00
Planting (Seedlings and Installation)	Trees	125676.8	\$ 0.39	\$ 49,013.95
<b>Subtotal</b>				<b>\$ 91,077.95</b>
<b>Construction Cost with 5% Contingency</b>				<b>\$ 95,631.85</b>
<b>Cost Per Credit Acre</b>				<b>\$ 403.68</b>



Establishment Costs for  
USACE Permit MVN-2010-1148-CY PRM

Year	Event	Event Cost	Percent	Occurrences/ Year	Cost	Percent of Cost	Release Milestone
1	Monitoring/ Inspection	\$ 790.00	100%	2	\$ 1,580.00		
1	Replant (30%)	\$ 49,013.95	30%	1	\$ 14,704.19		
1	Invasive Species Control (100%)	\$ 21,321.00	100%	1	\$ 21,321.00		
	Invasive Species Mobilization	\$ 100.00	100%	1	\$ 100.00		
1	Property Taxes	\$ 745.50	100%	1	\$ 745.50		
1	<b>Subtotal</b>	<b>\$ 71,124.95</b>			<b>\$ 38,450.69</b>	<b>49.8%</b>	<b>Initial Success</b>
2	Monitoring/ Inspection	\$ 790.00	100%	2	\$ 1,580.00		<b>\$38,450.69</b>
2	Replant (10%)	\$ 49,013.95	10%	1	\$ 4,901.40		
2	Invasive Species Control (25%)	\$ 21,321.00	25%	1	\$ 5,330.25		
	Invasive Species Mobilization	\$ 100.00		1			
2	Property Taxes	\$ 745.50	100%	1	\$ 745.50		
2	<b>Subtotal</b>	<b>\$ 71,970.45</b>			<b>\$ 12,557.15</b>	<b>16.3%</b>	
3	Monitoring/ Inspection	\$ 790.00	100%	2	\$ 1,580.00		
3	Invasive Species Control (20%)	\$ 21,321.00	20%	1	\$ 4,264.20		
	Invasive Species Mobilization	\$ 100.00		1			
3	Property Taxes	\$ 745.50	100%	1	\$ 745.50		
3	<b>Subtotal</b>	<b>\$ 22,956.50</b>			<b>\$ 6,589.70</b>	<b>8.5%</b>	
4	Monitoring/ Inspection	\$ 790.00	100%	2	\$ 1,580.00		
4	Invasive Species Control (10%)	\$ 21,321.00	10%	1	\$ 2,132.10		
	Invasive Species Mobilization	\$ 100.00		1			
4	Property Taxes	\$ 745.50	100%	1	\$ 745.50		
4	<b>Subtotal</b>	<b>\$ 22,956.50</b>			<b>\$ 4,457.60</b>	<b>5.8%</b>	
5	Monitoring/ Inspection	\$ 790.00	100%	2	\$ 1,580.00		
5	Invasive Species Control (5%)	\$ 21,321.00	5%	1	\$ 1,066.05		
	Invasive Species Mobilization	\$ 100.00		1			
5	Property Taxes	\$ 745.50	100%	1	\$ 745.50		
5	<b>Subtotal</b>	<b>\$ 22,956.50</b>			<b>\$ 3,391.55</b>	<b>4.4%</b>	<b>Interim Success</b>
6	Property Taxes	\$ 745.50	100%	1	\$ 745.50		<b>\$26,996.00</b>
6	<b>Subtotal</b>	<b>\$ 745.50</b>			<b>\$ 745.50</b>	<b>1.0%</b>	
7	Property Taxes	\$ 745.50	100%	1	\$ 745.50		
7	<b>Subtotal</b>	<b>\$ 745.50</b>			<b>\$ 745.50</b>	<b>1.0%</b>	
8	Property Taxes	\$ 745.50	100%	1	\$ 745.50		
8	<b>Subtotal</b>	<b>\$ 745.50</b>			<b>\$ 745.50</b>	<b>1.0%</b>	
9	Property Taxes	\$ 745.50	100%	1	\$ 745.50		
9	<b>Subtotal</b>	<b>\$ 745.50</b>			<b>\$ 745.50</b>	<b>1.0%</b>	
10	Monitoring/ Inspection	\$ 809.04	100%	2	\$ 1,618.08		
10	Invasive Species Control (2%)	\$ 21,834.84	2%	1	\$ 436.70		
	Invasive Species Mobilization	\$ 102.41		1			
10	Property Taxes	\$ 763.47	100%	1	\$ 763.47		
10	Boundary Maintenance	\$ 390.18	100%	1	\$ 390.18		
10	<b>Subtotal with Year 10 Adjusted In</b>	<b>\$ 23,899.93</b>	<b>102%</b>		<b>\$ 3,208.42</b>	<b>4.2%</b>	
11	Property Taxes	\$ 763.47	100%	1	\$ 763.47		
11	<b>Subtotal with Year 11 Adjusted In</b>	<b>\$ 763.47</b>	<b>102%</b>		<b>\$ 781.87</b>	<b>1.0%</b>	
12	Property Taxes	\$ 763.47	100%	1	\$ 763.47		
12	<b>Subtotal with Year 12 Adjusted In</b>	<b>\$ 763.47</b>	<b>102%</b>		<b>\$ 781.87</b>	<b>1.0%</b>	
13	Property Taxes	\$ 763.47	100%	1	\$ 763.47		
13	<b>Subtotal with Year 13 Adjusted In</b>	<b>\$ 763.47</b>	<b>102%</b>		<b>\$ 781.87</b>	<b>1.0%</b>	
14	Property Taxes	\$ 763.47	100%	1	\$ 763.47		
14	<b>Subtotal with Year 14 Adjusted In</b>	<b>\$ 763.47</b>	<b>102%</b>		<b>\$ 781.87</b>	<b>1.0%</b>	
15	Monitoring/ Inspection	\$ 809.04	100%	1	\$ 809.04		
15	Invasive Species Control (2%)	\$ 21,834.84	2%	1	\$ 436.70		
	Invasive Species Mobilization	\$ 102.41		1			
15	Property Taxes	\$ 763.47	100%	1	\$ 763.47		
15	Boundary Maintenance	\$ 390.18	100%	1	\$ 390.18		
15	<b>Subtotal with Year 15 Adjusted In</b>	<b>\$ 23,899.93</b>	<b>102%</b>		<b>\$ 2,457.21</b>	<b>3.2%</b>	<b>Long-Term Success</b>
							<b>\$11,775.10</b>
	<b>Total</b>				<b>\$ 77,221.78</b>	<b>100.0%</b>	<b>\$77,221.78</b>
	<b>Total Per Credit Acre</b>				<b>\$ 325.97</b>		



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